4 8689

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Ganapathy Krishnan Examiner #: 79271 Date: 6/12/02
Art Unit: 1623 Phone Number 305-4837 Serial Number: 09964554
Mail Box and Bldg/Room Location: 8D08 (8B19) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Triterpene Saponins from Soybeans for treating kidney disease.

Inventors (please provide full names): Bruce Holub, F. Collins, Dominique P. Bureau, Diana J. Philbrick

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Search claims 1-18
Please also search structures in Figure 3, 4 and 5

Point of Contact:
Beverly Shears
Technical Info. Specialist
CM1 1E05 Tel: 308-4994

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JUN 13 2002
STIC

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****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Beverly 4994	NA Sequence (#)	STN
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic	Dr.Link
Date Completed: 06-17-02	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 20	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: 49	Other	Other (specify)

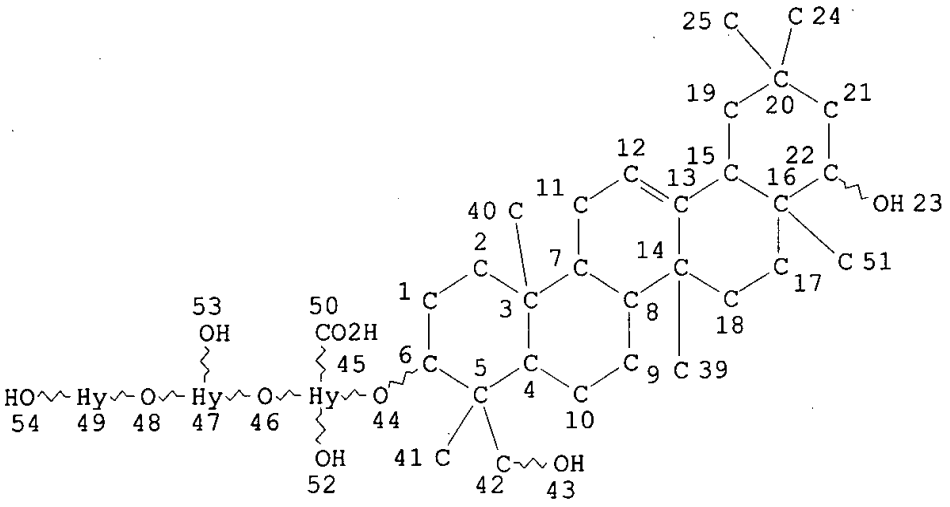
PTO-1590 (8-01)

Krishnan
09/964554

(FILE 'REGISTRY' ENTERED AT 14:48:47 ON 17 JUN 2002)

L3 STR

Str.
Figs 3-5



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 45
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GGCAT IS SAT AT 49
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 O AT 45
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE

L5 52 SEA FILE=REGISTRY SSS FUL L3

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(FILE 'HCAPLUS' ENTERED AT 14:56:26 ON 17 JUN 2002)

L6 230 SEA ABB=ON PLU=ON L5
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L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:839086 HCAPLUS
DOCUMENT NUMBER: 123:218421
TITLE: Endothelin-converting enzyme inhibitors containing soyasaponins and therapeutics for diseases
INVENTOR(S): Sakai, Hiroshi; Hiramoto, Shigeru; Oowaki, Tatsuya; Nakada, Fumihisa; Shirane, Katsunori; Hojo, Naomi; Fujimaki, Sumi; Komatsu, Hirohiko
PATENT ASSIGNEE(S): Nisshin Flour Milling Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07188033	A2	19950725	JP 1993-334725	19931228

OTHER SOURCE(S): MARPAT 123:218421

AB The enzyme inhibitors contain soyasaponins or their pharmacol. acceptable salts. Also claimed are therapeutics contg. the inhibitors as active ingredients for hypertension, twitch after subarachnoidal hemorrhage, myocardial infarction, arteriosclerosis, **renal** failure, cardiac failure, asthma, Raynaud **disease**, Buerger's disease, Takayasu's **disease**, Kawasaki's **disease**, and **renal disorders** in cisplatin therapy. Inhibition rates of soyasaponin II against endothelin-converting enzymes from human placenta and rat lung were 67 and 42%, resp., and the activity was specific to the enzyme. A tablet contg. soyasaponin I was formulated.

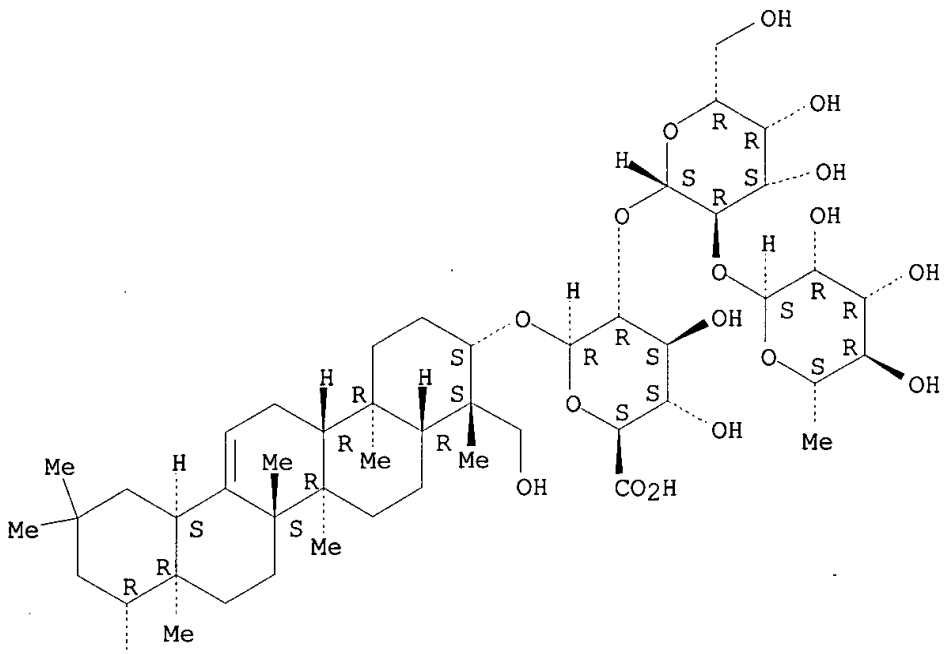
IT **51330-27-9**, Soyasaponin I **55319-36-3**, Soyasaponin II
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endothelin-converting enzyme inhibitors contg. soyasaponins and therapeutics contg. the inhibitors)

RN 51330-27-9 HCAPLUS

CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

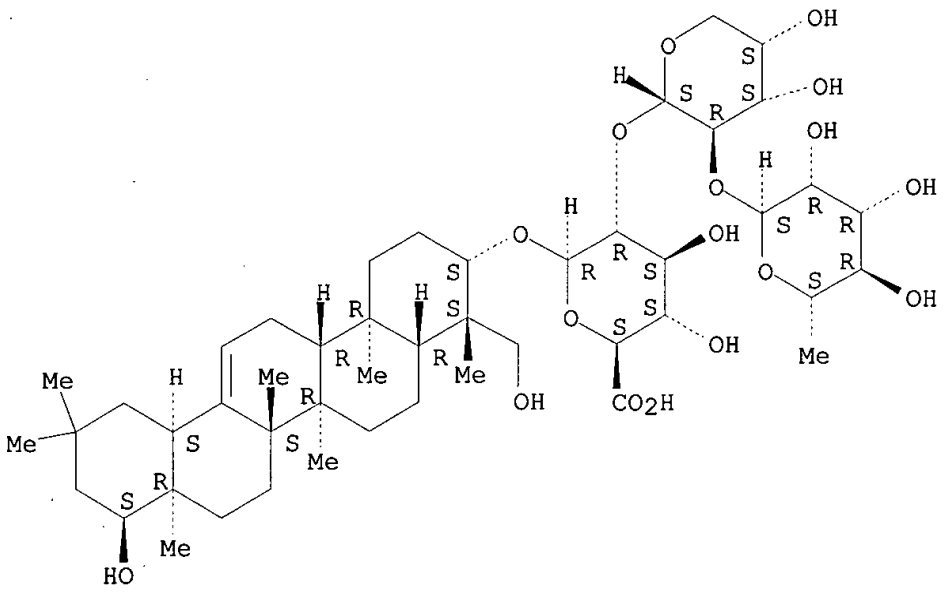
PAGE 1-A



PAGE 2-A

RN 55319-36-3 HCAPLUS
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.alpha.-L-arabinopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:204721 HCAPLUS
DOCUMENT NUMBER: 112:204721
TITLE: Flavonoids, saponins, and glycoside thereof for improvement of urea nitrogen metabolism
INVENTOR(S): Shinho, Jujiro; Yamazaki, Ritsu; Nohara, Toshihiro; Kaneshiro, Yorihide; Nakajima, Kajiro; Ito, Hiroshi
PATENT ASSIGNEE(S): Ohta's Isan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01226824	A2	19890911	JP 1988-55803	19880308
JP 08032632	B4	19960329		

OTHER SOURCE(S): MARPAT 112:204721
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. are I (R1-R6 = H, OH, OMe, glucose, O-glucose, O-glucose-xylose), saponins II (R7, R8 = H, Me, CH2OH), and their glycosides derived from peas. Flower of Ueraria lobata was extd. with MeOH to give a flavonoid mixt. [irisolidone, genistein, tectoridin, daidzein, daidzin, puerarin, hakkalide, kakkatin,

kakkalidone, formononetin, I (R1 = R2 = H; R3 = R5 = R6 = OH; R4 = glucose), I (R1 = R2 = H; R3 = R6 = OH, R4 = glucose; R5 = OMe)] and a saponin mixt. [II (R7 = R8 = CH2OH), (R7 = Me, R8 = CH2OH), and (R7 = Me, R8 = OH)]. The flavonoid mixt. at 1000 mg/kg p.o. showed 23.4 mg/dL urea N in serum of EtOH-treated mice, vs. 35.9 mg/dL for control and 17.5 mg/dL in normal mice. Tablets, capsule, and granule formulations are given.

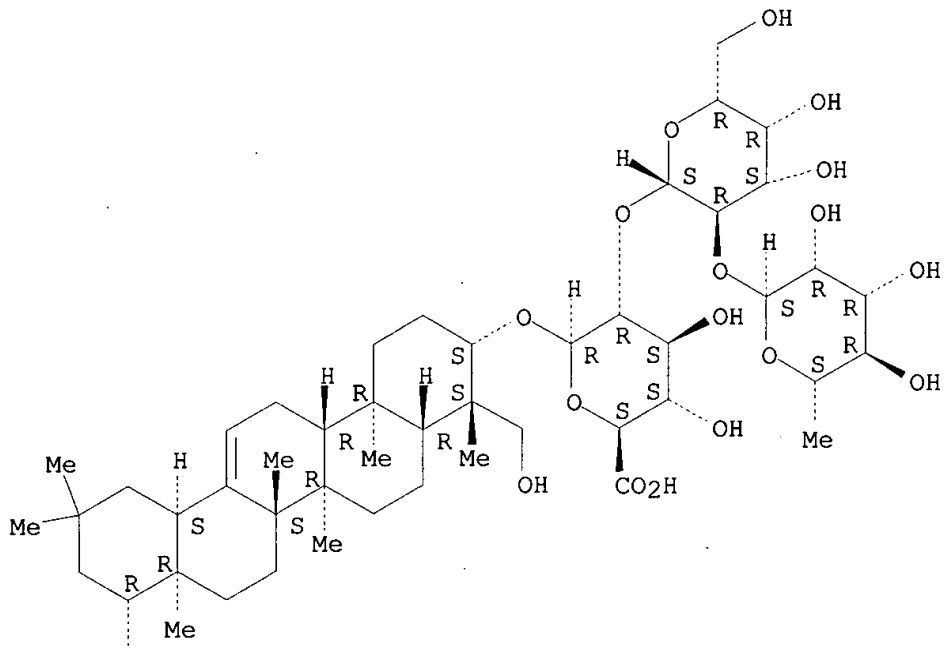
IT **51330-27-9**
RL: BIOL (Biological study)
(extn. of saponin mixt. contg., from Pueraria lotata for improving urea nitrogen metab.)

RN 51330-27-9 HCAPLUS

CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:82441 HCAPLUS
DOCUMENT NUMBER: 92:82441
TITLE: Anticomplementary composition containing a

soyasapogenol B derivative or its salt

INVENTOR(S): Shinohara, Masanao; Nakano, Yoshimasa; Kaise, Hirotsugu; Izawa, Taketoshi; Miyazaki, Wasei

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: Ger. Offen., 50 pp.
CODEN: GWXXBX

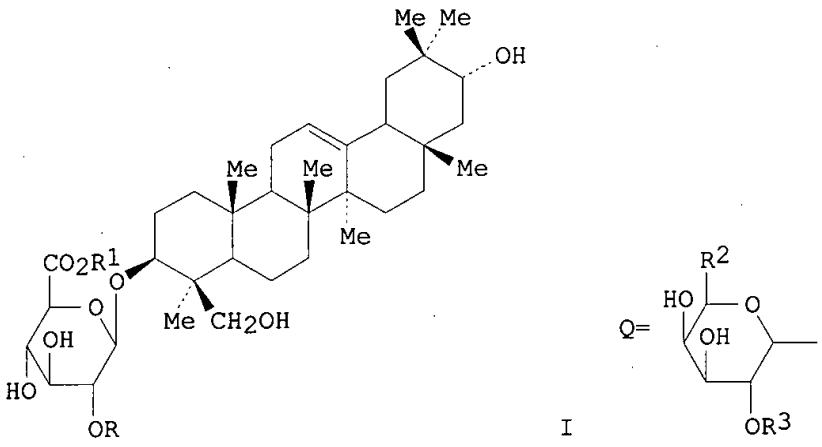
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2911332	A1	19791011	DE 1979-2911332	19790322
DE 2911332	C2	19880825		
JP 54130551	A2	19791009	JP 1978-38536	19780331
JP 58022120	B4	19830506		
JP 54151136	A2	19791128	JP 1978-59345	19780517
JP 59046485	B4	19841113		
AU 7944996	A1	19791004	AU 1979-44996	19790309
AU 528415	B2	19830428		
GB 2017494	A	19791010	GB 1979-10738	19790327
GB 2017494	B2	19820603		
CA 1122899	A1	19820504	CA 1979-324368	19790328
CH 646606	A	19841214	CH 1979-2867	19790328
NL 7902450	A	19791002	NL 1979-2450	19790329
SE 7902867	A	19791001	SE 1979-2867	19790330
SE 445646	B	19860707		
SE 445646	C	19861016		
FR 2420975	A1	19791026	FR 1979-8122	19790330
FR 2420975	B1	19830318		
US 4371524	A	19830201	US 1981-241294	19810306
AT 8103847	A	19840815	AT 1981-3847	19810907
AT 377526	B	19850325		

PRIORITY APPLN. INFO.:

JP 1978-38536	19780331
JP 1978-59345	19780517
AT 1979-2360	19790329
US 1979-25517	19790330

GI



I

AB The title compn. contains I (R = H, Q; R1 = H, C1-6 alkyl; R2 = H, CH2OH; R3 = H, rhamnopyranosyl). Thus soyasaponin B [**51330-27-9**] was subjected to alcoholysis, followed by hydrolysis to give I(R = R1 = H) [72584-55-5]. Na salt (I, R = H, R1 = Na) [72584-56-6] (500 mg) was combined with 250 mg glucose and 5 mL injectable soln. I (R = R1 = H) had complement-inhibiting activity against guinea pig human complement of 5.gamma./mL.

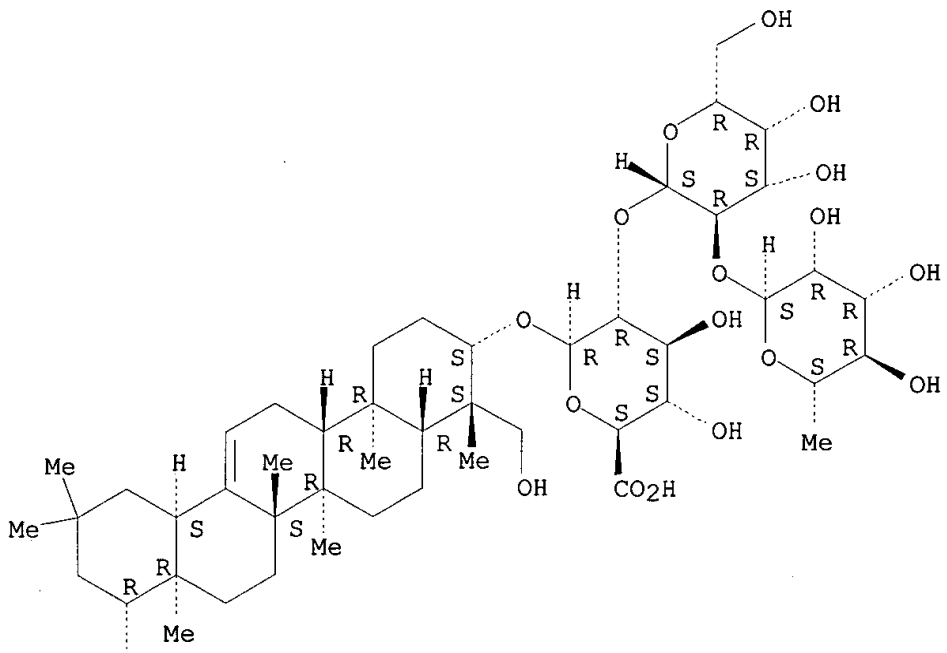
IT **51330-27-9 55319-36-3**
RL: RCT (Reactant)
(alcoholysis of)

RN 51330-27-9 HCAPLUS

CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

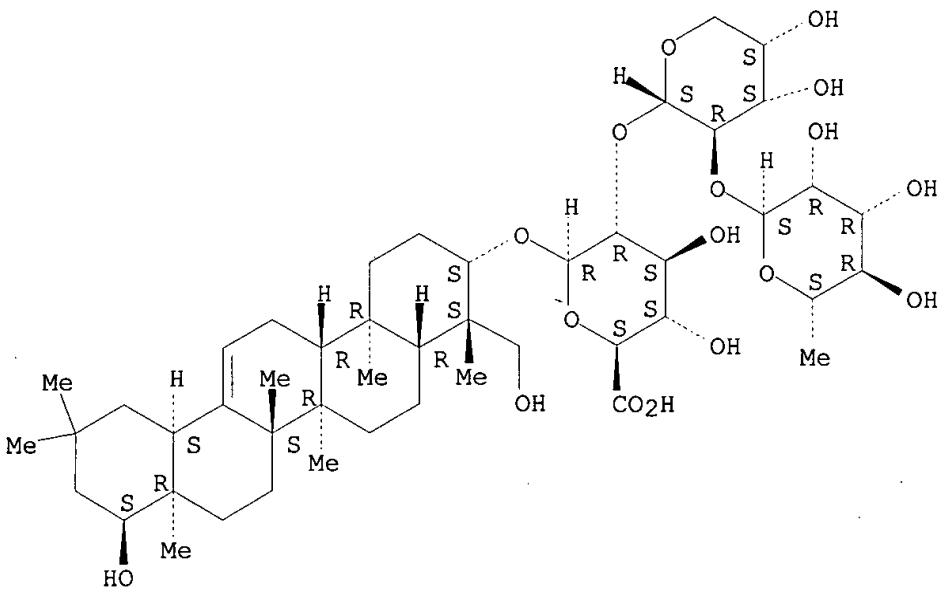
PAGE 1-A



PAGE 2-A

RN 55319-36-3 HCAPLUS
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.alpha.-L-arabinopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

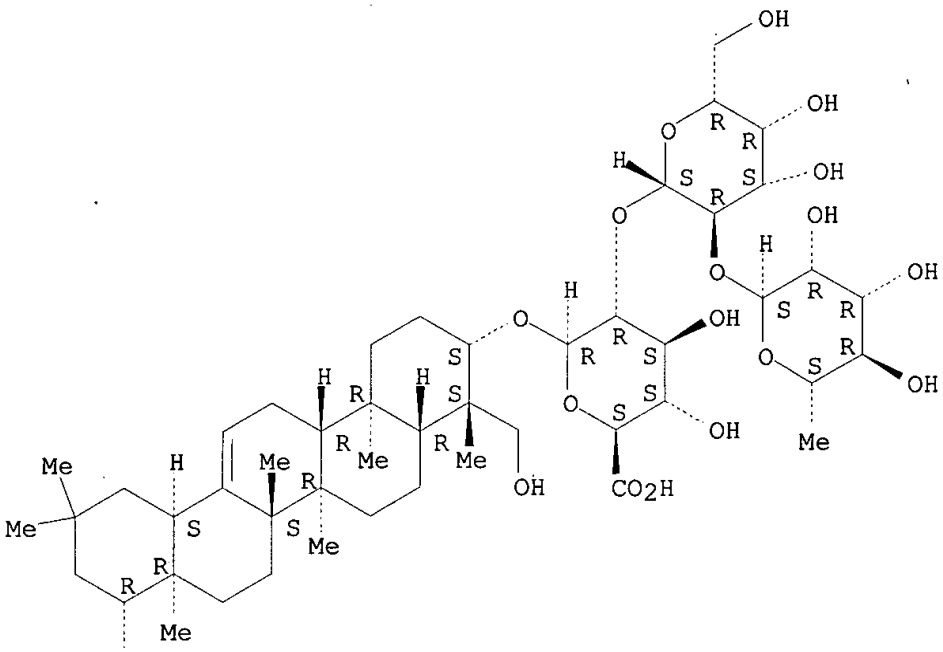
Absolute stereochemistry.



IT **51330-27-9 55319-36-3**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(complement inhibiting activity of)
RN 51330-27-9 HCAPLUS
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

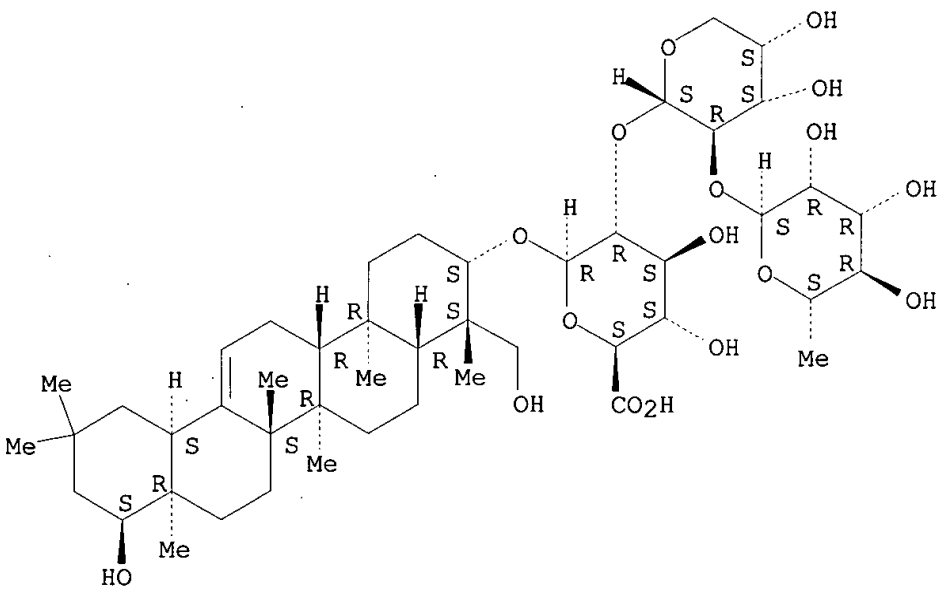


PAGE 2-A

HO

RN 55319-36-3 HCAPLUS
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.alpha.-L-arabinopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



E1 THROUGH E2 ASSIGNED

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L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON (51330-27-9/BI OR 55319-36-3/BI)

FILE 'CAOLD' ENTERED AT 14:59:17 ON 17 JUN 2002
L9 0 S L8

FILE 'USPATFULL' ENTERED AT 14:59:21 ON 17 JUN 2002
L10 5 S L8

L10 ANSWER 1 OF 5 USPATFULL

ACCESSION NUMBER:	2002:112329 USPATFULL
TITLE:	Soya extract, process for its preparation and pharmaceutical composition
INVENTOR(S):	Bombardelli, Ezio, Milano, ITALY Gabetta, Bruno, Milano, ITALY
PATENT ASSIGNEE(S):	Indena S.p.A. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058062	A1	20020516
APPLICATION INFO.:	US 2001-902226	A1	20010711 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-492921, filed on 28 Jan 2000, GRANTED, Pat. No. US 6280777
Continuation-in-part of Ser. No. WO 1998-EP4770, filed on 30 Jul 1998, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19732866	19970730
	DE 1997-19732855	19970730
	DE 1997-19732822	19970730

Searcher : Shears 308-4994

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE & EDMONDS LLP, 1667 K Street, N.W., Washington, DC, 20006
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 759
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A soya extract having a content of glucoside isoflavones of at least 13% by weight and a content of 0.6 to 1.5 parts by weight of group 3 soya saponins per 1 part by weight of glucoside isoflavones. Also, pharmaceutical compositions containing this extract and methods of administering the extract to treat conditions such as pre- or post-menopausal symptoms, cancer, such as breast or prostate cancer, or alcoholism. The extracts are made by a process which includes the steps of treating ripe whole soya beans or oil-free soya flour with an aliphatic alcohol to obtain a first extract; concentrating the first extract to form a concentrated first extract; purifying the concentrated first extract by treatment with at least one aliphatic hydrocarbon; and extracting active components from the purified concentrated first extract with a water-immiscible aliphatic alcohol to obtain a second extract. Preferably, the final extract is concentrated dried to form the desired soya extract.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 2 OF 5 USPATFULL
ACCESSION NUMBER: 2001:141924 USPATFULL
TITLE: Soya extract, process for its preparation and pharmaceutical composition
INVENTOR(S): Bombardelli, Ezio, Milan, Italy
Gabetta, Bruno, Milan, Italy
PATENT ASSIGNEE(S): Indena S.p.A., Milan, Italy (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280777	B1	20010828
APPLICATION INFO.:	US 2000-492921		20000128 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1998-EP4770, filed on 30 Jul 1998

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19732866	19970730
	DE 1997-19732855	19970730
	DE 1997-19732822	19970730

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lankford, Jr., Leon B.
ASSISTANT EXAMINER: Flood, Michele C.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 762

Searcher : Shears 308-4994

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A soya extract having a content of glucoside isoflavones of at least 13% by weight and a content of 0.6 to 1.5 parts by weight of group 3 soya saponins per 1 part by weight of glucoside isoflavones. Also, pharmaceutical compositions containing this extract and methods of administering the extract to treat conditions such as pre- or post-menopausal symptoms, cancer, such as breast or prostate cancer, or alcoholism. The extracts are made by a process which includes the steps of treating ripe whole soya beans or oil-free soya flour with an aliphatic alcohol to obtain a first extract; concentrating the first extract to form a concentrated first extract; purifying the concentrated first extract by treatment with at least one aliphatic hydrocarbon; and extracting active components from the purified concentrated first extract with a water-immiscible aliphatic alcohol to obtain a second extract. Preferably, the final extract is concentrated dried to form the desired soya extract.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 5 USPATFULL

ACCESSION NUMBER:	86:34304 USPATFULL		
TITLE:	Method of isolating soyasaponins		
INVENTOR(S):	Kitagawa, Isao, Toyonaka, Japan		
PATENT ASSIGNEE(S):	Osaka Chemical Laboratory Co., Ltd., Osaka, Japan (non-U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4594412		19860610
APPLICATION INFO.:	US 1984-568714		19840106 (6)
	NUMBER		DATE
PRIORITY INFORMATION:	JP 1983-49359		19830323
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Brown, Johnnie R.		
LEGAL REPRESENTATIVE:	Stiefel, Gross, Kurland & Pavane		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
LINE COUNT:	423		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of isolating soyasaponins which comprises defatting or not defatting the whole plant and/or the seed of a plant belonging to Leguminosae Trifolium, Leguminesae Medicago, Leguminosae Astragalus and Leguminosae Vicia, extracting said whole plant and/or seed with water, an organic solvent miscible with water or a mixture of such organic solvent and water, and isolating soyasaponin I from the extract obtained.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 5 USPATFULL

ACCESSION NUMBER:	83:5369 USPATFULL
TITLE:	Anticomplementary agents comprising soyasapogenol B compounds
INVENTOR(S):	Shinohara, Masanao, Naruto, Japan

Nakano, Yoshimasa, Tokushima, Japan
Kaise, Hirotsugu, Tokushima, Japan
Izawa, Taketoshi, Tokushima, Japan
Miyazaki, Wasei, Tokushima, Japan

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4371524		19830201
APPLICATION INFO.:	US 1981-241294		19810306 (6)

DISCLAIMER DATE: 19970812
RELATED APPLN. INFO.: Continuation of Ser. No. US 1979-25517, filed on 30 Mar 1979, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1978-38536	19780331
	JP 1978-59345	19780517

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hazel, Blondel
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1,2
LINE COUNT: 911
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A pharmaceutical composition having an anticomplementary activity comprising a therapeutically effective amount of at least one soyasapogenol B compound represented by the general formula (I): ##STR1## wherein R.sup.1 represents a hydrogen atom or a group represented by the formula: ##STR2## wherein R.sup.2 represents a hydrogen atom or a hydroxymethyl group, R.sup.3 represents a hydrogen atom or a rhamnopyranosyl group, and R.sup.4 represents a hydrogen atom or an alkyl group having 1 to 6 carbon atoms or pharmaceutically acceptable salts thereof and a pharmaceutically acceptable carrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 5 USPATFULL
ACCESSION NUMBER: 80:39349 USPATFULL
TITLE: 3-O-(.beta.-D-Glucuronopyranosyl)-soyasapogenol B
INVENTOR(S): Shinohara, Masanao, Naruto, Japan
Nakano, Yoshimasa, Tokushima, Japan
Kaise, Hirotsugu, Tokushima, Japan
Izawa, Taketoshi, Tokushima, Japan
Miyazaki, Wasei, Tokushima, Japan
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4217345		19800812
APPLICATION INFO.:	US 1979-25518		19790330 (6)

	NUMBER	DATE

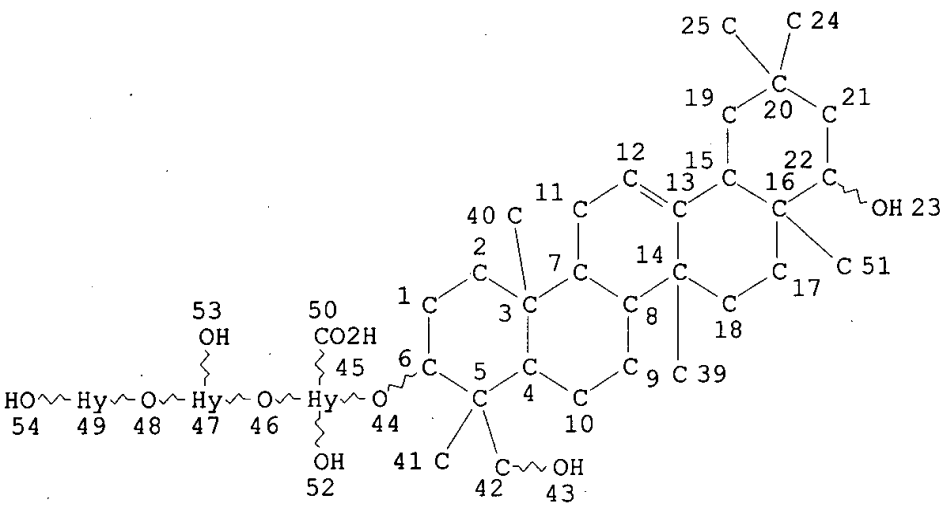
Searcher : Shears 308-4994

PRIORITY INFORMATION: JP 1978-38536 19780331
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Brown, Johnnie R.
ASSISTANT EXAMINER: Hazel, Blondel
LEGAL REPRESENTATIVE: Sughrue, Rothwell, Mion, Zinn & Macpeak
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1,2
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 797
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 3-O-(.beta.-D-Glucuronopyranosyl)-soyasapogenol B represented by the formula (I): ##STR1## and salts thereof and process for preparing the same are disclosed. The compound represented by the formula (I) and salts thereof have anticomplementary activity and are useful as therapeutic agents for autoimmune diseases, collagen diseases, and rheumatic diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MARPAT' ENTERED AT 14:59:42 ON 17 JUN 2002)
L3 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 45
GGCAT IS SAT AT 47
GGCAT IS SAT AT 49
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 O AT 45
ECOUNT IS E5 C E1 O AT 47
ECOUNT IS E5 C E1 O AT 49

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
MLEVEL IS CLASS ON RING NODES AND RING GROUPS
MLEVEL IS CLASS ON CHAIN NODES AND CHAIN GROUPS
ECLEVEL IS UNLIM ON ALL NODES

L14 [redacted] (MODIFIED ATTRIBUTES)

100.0% PROCESSED 41873 ITERATIONS ([redacted] INCOMPLETE) 9 ANSWERS
SEARCH TIME: 00.02.06

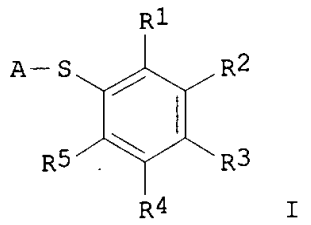
L14 ANSWER 1 OF 9 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 136:102389 MARPAT
TITLE: Preparation of aryl cyclopropylphenyl sulfide derivatives and their use as cell adhesion-inhibiting anti-inflammatory and immune-suppressive agents
INVENTOR(S): Link, James T.; Sorensen, Bryan K.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002522	A1	20020110	WO 2001-US20156	20010622

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-606770 20000629
GI



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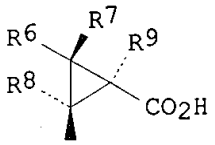

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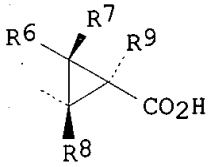

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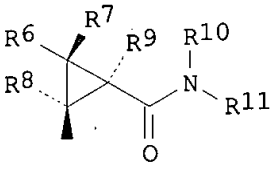

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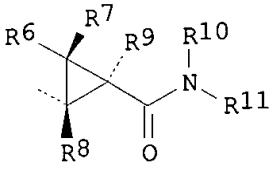


AB The title compds. [I; R1, R2, R3, R4, R5 = H, halo, alkyl, haloalkyl, alkoxy, cyano, nitro, cycloalkyl, and carboxaldehyde; with the proviso that at least one of R1 or R3 is selected from the group consisting of cis- or trans-cyclopropanoic acid or cyclopropanecarboxamide Q, Q1, Q2, and Q3 (wherein R6, R7 = H, alkyl, carboxy, hydroxyalkyl, carboxyalkyl; R8, R9 = H, alkyl, carboxyalkyl, alkylaminocarbonylalkyl, dialkylaminocatbonylalkyl; R10, R11 = H, alkyl, cycloalkyl, alkoxycarbonylalkyl, carboxyalkyl, hydroxyalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylamino; or wherein R10 and R11 may be joined to form a three to seven membered heterocyclyl ring, said ring optionally being substituted with one or more substituents R15; R15 = alkyl, alkoxy, alkoxyalkyl, cycloalkyl, aryl, heterocyclyl, heterocyclylcarbonyl, heterocyclylalkylaminocarbonyl, hydroxy, hydroxyalkyl, hydroxyalkoxyalkyl, carboxy, carboxyalkyl, carboxycarbonyl, carboxaldehyde, alkoxycarbonyl, etc.); A = an aryl or heterocyclyl group, said aryl or heterocyclyl group having at least one substituent R12 (wherein R12 = H, halogen, alkyl, aryl, haloalkyl, hydroxy, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxyalkoxy, hydroxyalkyl, etc.); wherein R1 - R11, R12, and R15 are unsubstituted or substituted with at least one electron donating or electron withdrawing group] or pharmaceutically-acceptable salts, optical isomers or prodrugs thereof are prepd. The present invention relates to novel cyclopropane-contg. diaryl sulfide compds. that are useful for treating inflammatory and immune diseases, to pharmaceutical compns. comprising these compds., and to methods of inhibiting inflammation or suppressing immune response in a mammal. Theses compds. bind to the interaction-domain (I-domain) of integrin LFA-1, thus interrupting endothelial cell-leukocyte adhesion by blocking the interaction of LFA-1 with intercellular adhesion mol. ICAM-1, ICAM-3, and other adhesion mols. They are useful for the treatment or prophylaxis of diseases in which leukocyte trafficking plays a role, notably acute and chronic inflammatory diseases, autoimmune diseases, tumor metastasis, allograft rejection, and reperfusion injury. Thus, one drop of DMF was added to a soln. of 2-isopropylphenyl 2,3-dichloro-4-(trans-2-carboxycyclopropyl)phenyl sulfide and oxalyl chloride in CH2Cl2, stirred at room temp. for 2 h, concd. in vacuo, and azeotropically

dried twice with toluene on a rotary evaporator. The residue was dissolved in CH2Cl2, treated with morpholine and N,N-diisopropylethylamine, and stirred for 1 h to give 2-isopropylphenyl 2,3-dichloro-4-(trans-2-(morpholinocarbonyl)cyclopropyl)phenyl disulfide (II). II at 2 .mu.M inhibited the binding of integrin LFA-1 to ICAM-1 by 96%.

IC ICM C07D207-26
ICS C07C323-62; C07D211-60; C07D295-08; C07D211-62; C07D295-18; C07D205-04; C07D295-12; C07D401-12; A61K031-33; A61K031-16

CC 28-13 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST aryl cyclopropylphenyl sulfide prepn cell adhesion inhibitor; antiinflammatory immunosuppressant aryl cyclopropylphenyl sulfide prepn

IT Thioethers
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(aryl; prepn. of aryl cyclopropylphenyl sulfide derivs. as cell adhesion-inhibiting anti-inflammatory, and immune-suppressive agents)

IT Anti-inflammatory agents
Cell adhesion
Immunosuppressants
(prepn. of aryl cyclopropylphenyl sulfide derivs. as cell adhesion-inhibiting anti-inflammatory, and immune-suppressive agents)

IT 280752-96-7P, 2,3-Dichloro-4-(trifluoromethanesulfonyloxy)benzaldehyde 387873-59-8P, 4-[(2-Bromophenyl)thio]-3-trifluoromethylbenzaldehyde 387873-60-1P, (2-Bromophenyl)[2-trifluoromethyl-4-[(E)-2-(ethoxycarbonyl)ethenyl]phenyl] sulfide 387873-61-2P 387873-62-3P 387873-65-6P 387873-68-9P 387873-92-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of aryl cyclopropylphenyl sulfide derivs. as cell adhesion-inhibiting anti-inflammatory, and immune-suppressive agents)

IT 350491-89-3P 350491-90-6P 350491-98-4P 350491-99-5P 350492-00-1P 350492-05-6P 350592-74-4P 387873-58-7P 387873-64-5P 387873-69-0P 387873-70-3P 387873-71-4P 387873-73-6P 387873-74-7P 387873-75-8P 387873-76-9P 387873-78-1P 387873-80-5P 387873-81-6P 387873-82-7P 387873-83-8P 387873-84-9P 387873-86-1P 387873-87-2P 387873-88-3P 387873-89-4P 387873-91-8P 387873-93-0P 387873-94-1P 387873-96-3P 387873-97-4P 387873-99-6P 387874-01-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of aryl cyclopropylphenyl sulfide derivs. as cell adhesion-inhibiting anti-inflammatory, and immune-suppressive agents)

IT 96-33-3, Methyl acrylate 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 503-29-7, Azetidine 924-73-2, .beta.-Alanine ethyl ester 1126-09-6, Ethyl isonipecotate 2038-03-1, 4-(2-Aminoethyl)morpholine 2516-34-9, Cyclobutylamine 5006-62-2,

Ethyl nipecotate 5680-79-5, Glycine methyl ester hydrochloride 5959-36-4, Ethyl 4-aminobutyrate 6057-90-5, .beta.-Alanine hydrochloride 6262-87-9, 2-Isopropylbenzenethiol 6287-38-3, 3,4-Dichlorobenzaldehyde 6320-01-0, 3-Bromobenzenethiol 6320-02-1, 2-Bromothiophenol 7217-59-6, 2-Methoxythiophenol 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidinone 13889-98-0, N-Acetylpiperazine 15862-72-3 16861-22-6, 2,3-Dichloro-4-hydroxybenzaldehyde 17577-28-5, (Ethoxycarbonylmethyl)triphenylphosphonium chloride 29549-62-0, 2-Isopropylthiophenol 67515-60-0, 4-Fluoro-3-trifluoromethylbenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepn. of aryl cyclopropylphenyl sulfide derivs. as cell adhesion-inhibiting anti-inflammatory, and immune-suppressive agents)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 9 MARPAT COPYRIGHT 2002 ACS
(ALL HITs ARE ITERATION INCOMPLETES)
ACCESSION NUMBER: 134:208131 MARPAT
TITLE: Preparation of novel glycoamino acids and glycoconjugates
INVENTOR(S): Danishefsky, Samuel J.; Allen, Jennifer R.; Ragupathi, Govindaswami; Livingston, Philip O.
PATENT ASSIGNEE(S): Sloan-Kettering Institute for Cancer Research, USA
SOURCE: PCT Int. Appl., 126 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001014395	A2	20010301	WO 2000-US22894	20000818
WO 2001014395	A3	20010907		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1210355	A2	20020605	EP 2000-957619	20000818
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: US 1999-150088P 19990820
WO 2000-US22894 20000818

AB Compds. represented by the formula A-O(CH2)n-R [R is H, (un)substituted alkyl, alkenyl, aryl, CH2CH(CO2R')NHR", where R' or R" are each independently H, a protecting group, (un)substituted alkyl, a linker, aryl, peptide, protein, lipid or NHR''', where R''' is a protein, peptide, or lipid linked to N directly or through a crosslinker; n is 0-8; and A is a carbohydrate domain of defined

structure] were prepd. The glycoconjugates of the invention are used for the treatment of cancer, preferably for the prevention of recurrence of cancer, and for inducing antibodies in a subject. The general synthetic methodol. involves the incorporation of an n-alkenyl glycoside protecting group at the reducing end of a carbohydrate acceptor to allow for increased coupling efficiencies and accessibility to complex carbohydrates.

IC ICM C07H015-00

CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 15, 33

ST glyco amino acid prepn; antigenic glycoconjugate prepn antitumor

IT Immunostimulants
(adjuvants; prepn. of novel glycoamino acids and glycoconjugates)

IT Amino acids, preparation
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(glyco; prepn. of novel glycoamino acids and glycoconjugates)

IT Bacteria (Eubacteria)
Liposomes
(immunol. adjuvants; prepn. of novel glycoamino acids and glycoconjugates)

IT Antitumor agents
(prepn. of novel glycoamino acids and glycoconjugates)

IT Glycoconjugates
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel glycoamino acids and glycoconjugates)

IT 256426-96-7P
RL: BYP (Byproduct); PREP (Preparation)
(prepn. of novel glycoamino acids and glycoconjugates)

IT 108-98-5, Benzenethiol, reactions 545-06-2, Trichloroacetonitrile 821-09-0, 4-Pentenyl alcohol 1125-88-8, Benzaldehyde dimethyl acetal 6291-42-5, Lactose octaacetate 142602-45-7 144002-21-1 165816-37-5 165816-38-6 165816-39-7 165816-44-4 196398-25-1 201053-19-2 252267-18-8 284663-21-4 328092-28-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of novel glycoamino acids and glycoconjugates)

IT 83025-11-0P 153228-87-6P 197663-12-0P 256426-89-8P 256426-90-1P 256426-91-2P 256426-92-3P 256426-93-4P 256426-94-5P 256426-95-6P 284663-03-2P 284663-04-3P 284663-05-4P 284663-06-5P 284663-07-6P 284663-11-2P 284663-13-4P 284663-20-3P 328091-66-3P 328092-02-0P 328092-34-8P 328092-41-7P 328092-49-5P 328092-57-5P 328092-63-3P 328092-70-2P 328092-78-0P 328092-85-9P 328093-06-7P 328093-12-5P 328093-21-6P 328093-28-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of novel glycoamino acids and glycoconjugates)

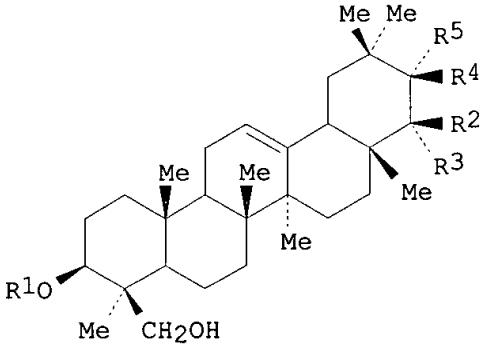
IT 165816-40-0P 173008-18-9P 256426-84-3P 256426-85-4P 256426-86-5P 256426-88-7P 284663-02-1P 328093-17-0P 328093-25-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of novel glycoamino acids and glycoconjugates)

IT 328093-32-9P 328912-72-7P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel glycoamino acids and glycoconjugates)

L14 ANSWER 3 OF 9 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:155390 MARPAT
TITLE: Soyasaponins as adjuvants and vaccines containing the adjuvants
INVENTOR(S): Oda, Kenji; Katayama, Shigeji; Ohgiya, Toshiaki; Yoshikawa, Masayuki
PATENT ASSIGNEE(S): Microbiochemical Research Foundation, Japan; Norin Suisan Sentan Sentan Gijutsu Sangyo Shinko Center
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000219638	A2	20000808	JP 1999-20424	19990128

GI



I

AB Soyasapogenol A-type oleanane saponins I (R1, R2 = sugar residue; R3, R5 = H; R4 = OH), soyasapogenol B-type I (R1 = sugar residue; R2 = OH; R3-R5 = H), and soyasapogenol E-type I (R1 = sugar residue; R2R3 = O; R4 = R5 H) are useful as adjuvants. Also claimed are ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines contg. the adjuvants. MeOH ext. of soybean was defatted and extd. with BuOH to give soyasaponin I, II, III, A1, A2, and dehydrosoyasaponin I, all of which showed adjuvant activity when administered with antiovalbumin antibodies to mice.

IC ICM A61K039-39
ICS A61P037-04; A61K031-704; A61K039-00; C07J063-00; A61K035-78
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 15
ST soyasaponin adjuvant vaccine; ricin toxoid vaccine adjuvant soyasaponin; porcine pseudorabies virus vaccine adjuvant soyasaponin
IT Immunostimulants
(adjuvants; soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)
IT Saponins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(soya; soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)

IT Pseudorabies virus
Vaccines
(soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)

IT Ricins
Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)

IT 7784-30-7, Aluminum phosphate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gel, adjuvants contg.; soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)

IT 51330-27-9P, Soyasaponin I 55304-02-4P, Soyasaponin III
55319-36-3P, Soyasaponin II 78693-93-3P, Soyasaponin A2
78693-94-4P, Soyasaponin A1 117210-14-7P, Dehydrosoyasaponin I
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(soyasaponins as adjuvants for ricin toxoid vaccines and inactivated porcine pseudorabies virus vaccines)

L14 ANSWER 4 OF 9 MARPAT COPYRIGHT 2002 ACS
(ALL HITs ARE ITERATION INCOMPLETES)

ACCESSION NUMBER:	126:213660 MARPAT
TITLE:	Detergent compositions comprising hydroxyacid compounds for reducing deposits on the heater element of a washing machine
INVENTOR(S):	Thoen, Christiaan Arthur Jacques Kamiel; Moss, Michael Alan John; Bettiol, Jean-Luc
PATENT ASSIGNEE(S):	Procter & Gamble Company, USA; Thoen, Christiaan Arthur Jacques Kamiel; Moss, Michael Alan John; Bettiol, Jean-Luc
SOURCE:	PCT Int. Appl., 60 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9705225	A1	19970213	WO 1996-US12242	19960725

W: BR, CA, CN, JP, MX, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2227884	AA	19970213	CA 1996-2227884	19960725
EP 843716	A1	19980527	EP 1996-926127	19960725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
BR 9609954	A	19990202	BR 1996-9954	19960725
PRIORITY APPLN. INFO.:			GB 1995-15203	19950725
			WO 1996-US12242	19960725

AB A detergent compn. comprises .gtoreq.1 surfactants and <5% .gtoreq.1 hydroxyacid compds. selected from monocarboxylic acid, alicyclic polycarboxylic acid, heterocyclic polycarboxylic acid and arom. polycarboxylic acid compds., and their salts, substituted with .gtoreq.1 hydroxyl group.

IC ICM C11D001-94
ICS C11D003-20

CC 46-5 (Surface Active Agents and Detergents)

ST hydroxy acid crystal growth inhibitor detergent

IT Detergents
Surfactants
(detergent compns. comprising hydroxyacid compds. for reducing deposits on heater element of a washing machine)

IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(hydroxy; detergent compns. comprising hydroxyacid compds. for reducing deposits on heater element of a washing machine)

IT 50-21-5, Lactic acid, uses 69-72-7, Salicylic acid, uses 79-14-1, Glycolic acid, uses 79-14-1D, Glycolic acid, salt 90-64-2, Mandelic acid
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(detergent compns. comprising hydroxyacid compds. for reducing deposits on heater element of a washing machine)

L14 ANSWER 5 OF 9 MARPAT COPYRIGHT 2002 ACS
(ALL HITs ARE ITERATION INCOMPLETES)

ACCESSION NUMBER:	121:109397 MARPAT
TITLE:	Preparation of ester derivatives of 4-azasteroids as steroid 5.alpha.-reductase inhibitors.
INVENTOR(S):	Witzel, Bruce E.; Rasmusson, Gary H.; Tolman, Richard L.; Yang, Shu Shu
PATENT ASSIGNEE(S):	Merck and Co., Inc., USA
SOURCE:	PCT Int. Appl., 66 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323041	A1	19931125	WO 1993-US4771	19930519
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9342525	A1	19931213	AU 1993-42525	19930519
AU 668181	B2	19960426		

EP 649306	A1	19950426	EP 1993-911362	19930519
EP 649306	B1	20010110		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 07508039	T2	19950907	JP 1993-503838	19930519
AT 198601	E	20010115	AT 1993-911362	19930519
US 5610162	A	19970311	US 1994-338573	19941117
PRIORITY APPLN. INFO.:			US 1992-886022	19920520
			WO 1993-US4771	19930519

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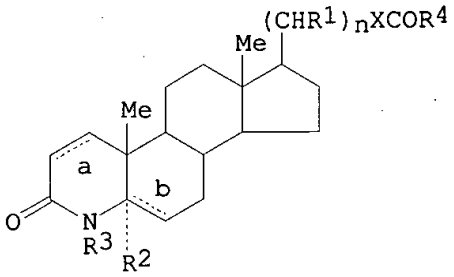

I

AB Title compds. [I; a, b = single bonds, R2 = H; or a = single bond, b = double bond, and R2 = null; R1 = H, aryl, alkyl, aralkyl; R3 = H, Me, Et, OH, NH2, SMe; n = 0-10; X = O, S; R4 = (substituted) alkyl, aryl, heterocyclyl, cycloalkyl, amino, OH, etc.] were prepd. as inhibitors of 5.alpha.-reductase and isoenzymes thereof. The compds. are useful for the treatment of hyperandrogenic disease conditions and diseases of the skin and scalp (no data). Thus, 20-hydroxy-4-methyl-5.alpha.-4-azapregnan-3-one, 11-ethylthioundecanoic acid, DMAP, and DCC were stirred in CH2Cl2 at room temp. to give 20-[11-(ethylthio)undecanoyloxy]-4-methyl-5.alpha.-4-azapregnan-3-one.

IC ICM A61K031-435
ICS C07D221-02

CC 32-4 (Steroids)
Section cross-reference(s): 1

ST azasteroid ester prepn steroid reductase inhibitor

IT Hirsutism
(female, treatment of, azasteroid esters for)

IT Acne
(treatment of, azasteroid esters for)

IT Prostate gland
(disease, benign hyperplasia, treatment of, azasteroid esters for)

IT Prostate gland
(disease, prostatitis, treatment of, azasteroid esters for)

IT Alopecia
(male pattern, treatment of, azasteroid esters for)

IT Prostate gland
(neoplasm, carcinoma, treatment of, azasteroid esters for)

IT 9081-34-9, 5.alpha.-Steroid reductase
RL: USES (Uses)
(inhibitors, azasteroid esters as)

IT 104214-41-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 156804-81-8P 156804-82-9P 156804-83-0P 156804-84-1P
156804-85-2P 156804-86-3P 156804-87-4P 156804-88-5P
156804-89-6P 156804-90-9P 156804-91-0P 156804-92-1P
156804-93-2P 156804-94-3P 156804-95-4P 156804-96-5P
156804-97-6P 156804-98-7P 156804-99-8P 156805-00-4P
156805-01-5P 156805-02-6P 156805-03-7P 156805-04-8P
156805-05-9P 156805-06-0P 156805-07-1P 156805-08-2P
156805-09-3P 156805-10-6P 156805-11-7P 156805-12-8P
156805-13-9P 156805-14-0P 156805-15-1P 156805-16-2P
156805-17-3P 156805-18-4P 156805-19-5P 156805-20-8P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of, as steroid 5.alpha.-reductase inhibitor)

IT 624-83-9, Methyl isocyanate 627-03-2, Ethoxyacetic acid
1609-86-5, tert-Butyl isocyanate 3173-56-6, Benzyl isocyanate
3282-30-2, Trimethylacetyl chloride 38460-95-6, 10-Undecenoyl chloride 76318-67-7 86284-02-8 104319-27-9 114019-70-4,
11-Ethylthioundecanoic acid 144879-14-1 156804-93-2
156805-21-9 156924-96-8
RL: RCT (Reactant)
(reaction of, in prepn. of steroid 5.alpha.-reductase inhibitor)

L14 ANSWER 6 OF 9 MARPAT COPYRIGHT 2002 ACS
(ALL HITs ARE ITERATION INCOMPLETES)

ACCESSION NUMBER: 120:245602 MARPAT
TITLE: Preparation of 17-ethers and thioethers of 4-aza-steroids as steroid reductase inhibitors
INVENTOR(S): Witzel, Bruce E.; Tolman, Richard L.; Rasmusson, Gary H.; Bakshi, Raman K.; Yang, Shu Shu
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323040	A1	19931125	WO 1993-US4746	19930519
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9342521	A1	19931213	AU 1993-42521	19930519
AU 668180	B2	19960426		
EP 641204	A1	19950308	EP 1993-911358	19930519
EP 641204	B1	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 07508038	T2	19950907	JP 1993-503831	19930519
AT 195530	E	20000915	AT 1993-911358	19930519
ES 2148229	T3	20001016	ES 1993-911358	19930519
US 5536727	A	19960716	US 1994-338572	19941117
PRIORITY APPLN. INFO.:			US 1992-886031	19920520
			WO 1993-US4746	19930519

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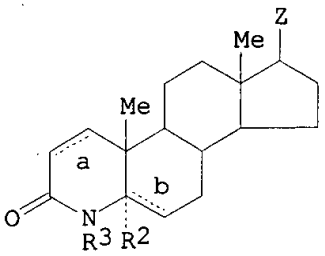

I

AB Title compds. [I; a, b both = single bonds, and R2 = H; or a = double bond, b = single bond, and R2 = H; or a = single bond, b = double bond, and R2 = null; R1 = H, aryl, (aryl)alkyl; R3 = H, Me, Et, OH, NH2, SMe; R4 = (substituted) alkyl, aryl, heterocyclyl; Z = XR4, (CHR1)nXR4; X = O, S, SO, SO2], were prepd. as inhibitors of steroid 5.alpha.-reductase enzymes 1 and 2 (no data). The compds. are useful for the treatment of hyperandrogenic disease conditions and diseases of the skin and scalp. Thus, 17-hydroxymethyl-4-methyl-5.alpha.-4-azaandrostan-3-one and diphenyldiazomethane in CH2Cl2 were treated dropwise with BF3.Et2O to give 17-diphenylmethoxymethyl-4-methyl-5.alpha.-4-azaandrostan-3-one.

IC ICM A61K031-435
ICS C07D221-02

CC 32-4 (Steroids)
Section cross-reference(s): 1

ST azasteroid ether prepn reductase inhibitor; testosterone reductase inhibitor azasteroid ether; prostatitis treatment azasteroid ether; hyperplasia treatment azasteroid ether; hirsutism treatment azasteroid ether; carcinoma prostatic treatment azasteroid ether

IT Hirsutism
(female, treatment of, azasteroid ethers for)

IT Acne
(treatment of, azasteroid ethers for)

IT Steroids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(4-aza-, 17-(thio)ethers, prepn. of, as steroid reductase inhibitors)

IT Prostate gland
(disease, benign hyperplasia, treatment of, azasteroid ethers for)

IT Prostate gland
(disease, prostatitis, treatment of, azasteroid ethers for)

IT Alopecia
(male pattern, treatment of, azasteroid ethers for)

IT Prostate gland
(neoplasm, carcinoma, treatment of, azasteroid ethers for)

IT 9081-34-9, 5.alpha.-Reductase
RL: USES (Uses)
(inhibitors, azasteroid ethers as)

IT 153946-18-0P 153946-19-1P 153946-20-4P 153946-21-5P
153946-22-6P 153946-23-7P 153946-24-8P 153946-25-9P
153946-27-1P
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as intermediate for steroid 5.alpha.-reductase inhibitor)

IT 153945-26-7P 153945-27-8P 153945-28-9P 153945-29-0P
153945-30-3P 153945-31-4P 153945-32-5P 153945-33-6P
153945-34-7P 153945-35-8P 153945-36-9P 153945-37-0P
153945-38-1P 153945-39-2P 153945-40-5P 153945-41-6P
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153945-58-5P 153945-59-6P 153945-60-9P 153945-61-0P
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153945-66-5P 153945-67-6P 153945-68-7P 153945-69-8P
153945-70-1P 153945-71-2P 153945-72-3P 153945-73-4P
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153945-78-9P 153945-79-0P 153945-80-3P 153945-81-4P
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153945-86-9P 153945-87-0P 153945-88-1P 153945-89-2P
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153945-94-9P 153945-95-0P 153945-96-1P 153945-97-2P
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153946-10-2P 153946-11-3P 153946-12-4P 153946-13-5P
153946-14-6P 153946-15-7P 153946-16-8P 153946-17-9P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of, as steroid 5.alpha.-reductase inhibitor)

IT 70-34-8, 2,4-Dinitrofluorobenzene 75-12-7, Formamide, reactions
92-69-3, 4-Hydroxybiphenyl 99-92-3, 4-Aminoacetophenone
102-49-8, 3,4-Dichlorobenzylamine 324-74-3, 4-Fluorobiphenyl
334-88-3, Diazomethane 350-46-9 352-32-9, 4-Fluorotoluene
352-33-0, 4-Fluorochlorobenzene 372-47-4, 3-Fluoropyridine
405-99-2, 4-Fluorostyrene 460-00-4, 4-Fluorobromobenzene
623-73-4, Ethyl diazoacetate 638-45-9, Hexyl iodide 769-92-6
811-51-8, Sodium thioethoxide 883-40-9, Diphenyldiazomethane
933-40-4, 1,1-Dimethoxycyclohexane 1194-02-1 4377-33-7,
2-Picolyl chloride 20607-43-6 52267-51-3, Benzyl diazoacetate
86283-92-3 86284-02-8 104214-41-7 104319-27-9 153946-26-0
153946-28-2 153946-29-3 154006-53-8
RL: RCT (Reactant)
(reaction of, in prepn. of steroid 5.alpha.-reductase inhibitor)

L14 ANSWER 7 OF 9 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 112:204721 MARPAT
TITLE: Flavonoids, saponins, and glycoside thereof for improvement of urea nitrogen metabolism
INVENTOR(S): Shinho, Jujiro; Yamazaki, Ritsu; Nohara, Toshihiro; Kaneshiro, Yorihide; Nakajima, Kajiro; Ito, Hiroshi
PATENT ASSIGNEE(S): Ohta's Isan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01226824	A2	19890911	JP 1988-55803	19880308
JP 08032632	B4	19960329		

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. are I (R1-R6 = H, OH, OMe, glucose, O-glucose, O-glucose-xylose), saponins II (R7, R8 = H, Me, CH2OH), and their glycosides derived from peas. Flower of Ueraria lobata was extd. with MeOH to give a flavonoid mixt. [irisolidone, genistein, tectoridin, daidzein, daidzin, puerarin, hakkalide, kakkatin, kakkalidone, formononetin, I (R1 = R2 = H; R3 = R5 = R6 = OH; R4 = glucose), I (R1 = R2 = H; R3 = R6 = OH, R4 = glucose; R5 = OMe)] and a saponin mixt. [II (R7 = R8 = CH2OH), (R7 = Me, R8 = CH2OH), and (R7 = Me, R8 = OH)]. The flavonoid mixt. at 1000 mg/kg p.o. showed 23.4 mg/dL urea N in serum of EtOH-treated mice, vs. 35.9 mg/dL for control and 17.5 mg/dL in normal mice. Tablets, capsule, and granule formulations are given.

IC ICM A61K035-78
ICS A61K031-35; A61K031-70; C07D311-36; C07H015-256; C07H017-07

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

ST urea nitrogen blood flavonoid saponin

IT Kidney, disease or disorder
(treatment of, by flavonoids and saponins)

IT 446-72-0, Genistein 485-72-3, Formononetin 486-66-8, Daidzein 552-66-9, Daidzin 611-40-5, Tectoridin 2345-17-7, Irisolidone 3681-99-0, Puerarin 57960-04-0, Kakkatin 58274-56-9, Kakkalide 126308-74-5, Kakkalidone 126308-75-6 126308-76-7
RL: BIOL (Biological study)
(extn. of flavonoid mixt. contg., from Pueraria lobata for improving urea nitrogen metab.)

IT 51330-27-9 126922-96-1
RL: BIOL (Biological study)
(extn. of saponin mixt. contg., from Pueraria lotata for improving urea nitrogen metab.)

IT 115330-93-3
RL: PROC (Process)
(extn. of, from Pueraria lobata for urea metab. improvement)

IT 57-13-6, Urea, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. of, flavonoids and saponins of Pueraria lobata for improvement of)

L14 ANSWER 8 OF 9 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 112:84153 MARPAT
TITLE: Soya saponin isolation from soybeans
INVENTOR(S): Kitagawa, Isamu
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01066196	A2	19890313	JP 1987-223280	19870907

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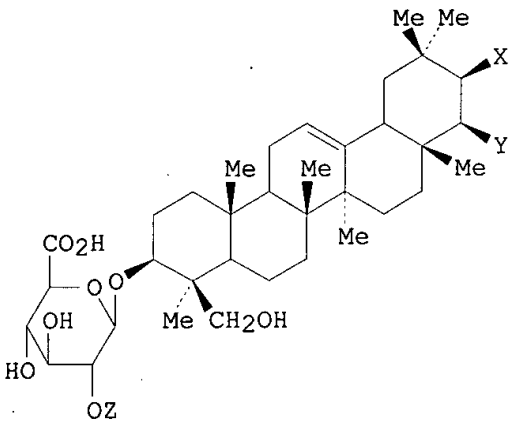

I

AB The soya saponins [I; when X = OH and Y = O-[2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl (1 .fwdarw. 3)-.alpha.-L-arabinopyranosyl, then Z = .beta.-D-glucopyranosyl (1 .fwdarw. 2)-.beta.-D-galactopyranosyl, .beta.-D-galactopyranosyl; when X = OH and Y = O-[2,3,4-tri-O-acetyl-.beta.-D-xylopyranosyl (1 .fwdarw. 3) .alpha.-L-arabinopyranosyl, then Z = .beta.-D-glucopyranosyl (1 .fwdarw. 2)-.beta.-D-galactopyranosyl, .beta.-D-galactopyranosyl or .alpha.-L-arabinopyranosyl; etc.] are isolated from soybean buds. Thus, the following soya saponins were isolated: acetylsoyasaponin A1, A2, A3, A4, A5, and A6, soyasaponin A3, A4, A5, and A6, and soyasaponin V. The acetylsoyasaponins are effective in stimulating gastric secretion, while soyasaponins V and A3-6 are effective in controlling lipid oxide formation.

IC ICM C07H015-256
ICA A61K031-70
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 11
ST acetylsoyasaponin isolation soybean; saponin isolation soybean
IT Lipids, biological studies
RL: BIOL (Biological study)
(peroxidn. of, soyasaponins for prevention of)
IT Pharmaceuticals
(saponins as, from soybeans)
IT Soybean
(saponins isolation from, for pharmaceuticals)
IT Stomach, metabolism
(secretion by, enhancement of, acetylsoyasaponins for)
IT Saponins
RL: PROC (Process)
(soya-, isolation of, for pharmaceuticals)

IT 114590-20-4 117210-06-7 117210-07-8 117210-16-9 117226-04-7
117230-32-7 117230-33-8 117230-34-9 117230-35-0 118194-13-1
125171-11-1
RL: PROC (Process)
(isolation of, from soybeans for pharmaceuticals)

L14 ANSWER 9 OF 9 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 112:25664 MARPAT
TITLE: Pharmaceuticals containing flavonids, saponins, and glycosides thereof for treatment of liver disorders
INVENTOR(S): Shinho, Yujiro; Yamazaki, Ritsu; Nohara, Toshihiro; Kaneshiro, Yorihide; Nakajima, Kajiro; Ito, Hiroshi
PATENT ASSIGNEE(S): Ohta's Isan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01068318	A2	19890314	JP 1987-225664	19870908
JP 05083524	B4	19931126		

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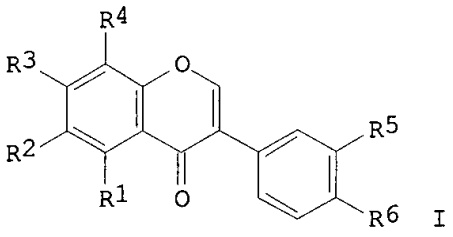

I

AB The pharmaceuticals are composed of flavonoids (I; R1-R6 = H, OH, OMe, glucose residue, O-glucose, O-glucose-xylose), saponins, and their glycosides. Isoflavonoids were isolated from Pueraria lobata roots and flowers and sepd. from triterpenoidal saponins. The purified isoflavonoids at 250 mg/kg showed 50.7% inhibition of GOT activity in CCl4-induced liver disorder in mice, vs. 12.9% with a ref. drug at 187.5 mg/kg. The isoflavonoids also showed 73.0% inhibition of GPT activity at 250 mg/kg in high fat-induced liver disorder in mice, vs. 66.5% with a ref. drug at 187.5 mg/kg.

IC ICM A61K031-35
ICS A61K031-70; C07D311-58; C07H015-256; C07H017-07
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 26
ST liver pharmaceutical flavonoid saponin; isoflavonoid liver disorder pharmaceutical; glycoside flavonoid liver disorder pharmaceutical
IT Saponins

RL: BIOL (Biological study)
(of beans, pharmaceuticals contg., for liver disorder treatment)

IT Flavonoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals contg., of beans for liver disorder treatment)

IT Liver, disease or disorder
(treatment of, flavonoids and saponins for)

IT Glycosides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(flavonoid, pharmaceuticals contg., of beans for liver disorder treatment)

IT Flavonoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(iso-, pharmaceuticals contg., of beans for liver disorder treatment)

IT Kudzu
(P. lobata, flavonoid and saponin extn. from, for treatment of liver disorders)

IT 574-12-9D, derivs. 124526-36-9D, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals contg., of Pueraria lobata for liver disorder treatment)

[redacted] ENTERED AT 15:08:52 ON 17 JUN 2002

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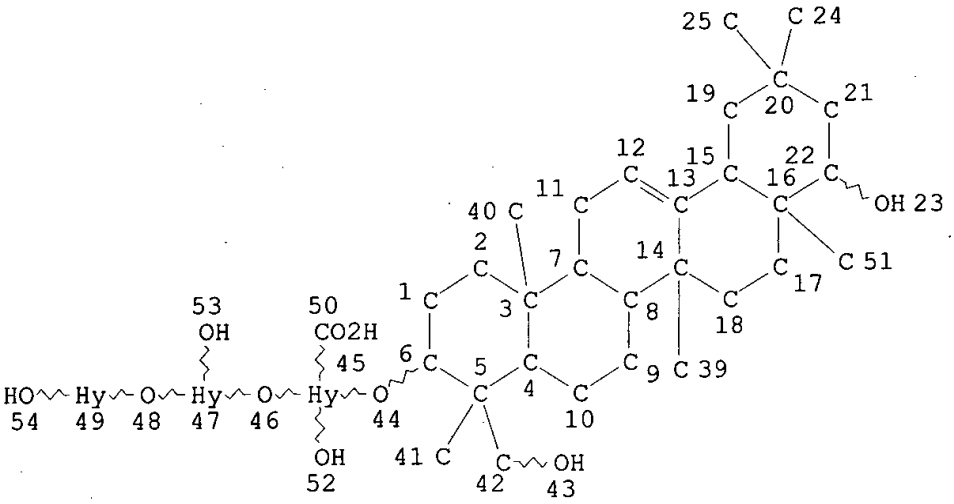

NODE ATTRIBUTES:
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GGCAT IS SAT AT 47
GGCAT IS SAT AT 49
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 O AT 45
ECOUNT IS E5 C E1 O AT 47
ECOUNT IS E5 C E1 O AT 49

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
MLEVEL IS CLASS ON RING NODES AND RING GROUPS
MLEVEL IS CLASS ON CHAIN NODES AND CHAIN GROUPS
ECLEVEL IS UNLIM ON ALL NODES

L15 0 SEA FILE=MARPATPREV SSS FUL L3 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 161 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.04

FILE 'REGISTRY' ENTERED AT 15:09:41 ON 17 JUN 2002

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E1            1      SOYASAPOGENOL F/CN
E2            2      SOYASAPOGENOL G/CN
E3            0 --> SOYASAPONIN/CN
E4            1      SOYASAPONIN .ALPHA.A/CN
E5            1      SOYASAPONIN .ALPHA.G/CN
E6            1      SOYASAPONIN .BETA.A/CN
E7            1      SOYASAPONIN .BETA.G/CN
E8            1      SOYASAPONIN .GAMMA.A/CN
E9            1      SOYASAPONIN .GAMMA.G/CN
E10           1      SOYASAPONIN A-B(F)/CN
E11           1      SOYASAPONIN A1/CN
E12           1      SOYASAPONIN A2/CN
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- key terms Soyasaponin used to treat kidney disease Claims 1-3

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=> s e6
L16           1 "SOYASAPONIN .BETA.A"/CN

=> e soyasaponin b/cn
E1            1      SOYASAPONIN AH/CN
E2            1      SOYASAPONIN AX/CN
E3            1 --> SOYASAPONIN B/CN
E4            1      SOYASAPONIN BA/CN
E5            1      SOYASAPONIN BB/CN
E6            1      SOYASAPONIN BB'/CN
E7            1      SOYASAPONIN BC/CN
E8            1      SOYASAPONIN BC'/CN
E9            1      SOYASAPONIN BD/CN
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E11           1      SOYASAPONIN BF/CN
E12           1      SOYASAPONIN BG/CN

=> s e4 or e5 or e7
              1 "SOYASAPONIN BA"/CN
              1 "SOYASAPONIN BB"/CN
              1 "SOYASAPONIN BC"/CN
L17           3 "SOYASAPONIN BA"/CN OR "SOYASAPONIN BB"/CN OR "SOYASAPONIN
                BC"/CN

L18          17 S ?SOYASAPOGENOL?/CNS
L19         475 S ?GLUCURONOSYL?/CNS
L20           0 S L18(L)L19
L21        1087 S ?GALACTOSYL?/CNS
L22           0 S L18(L)L21

=> s l16 or l17
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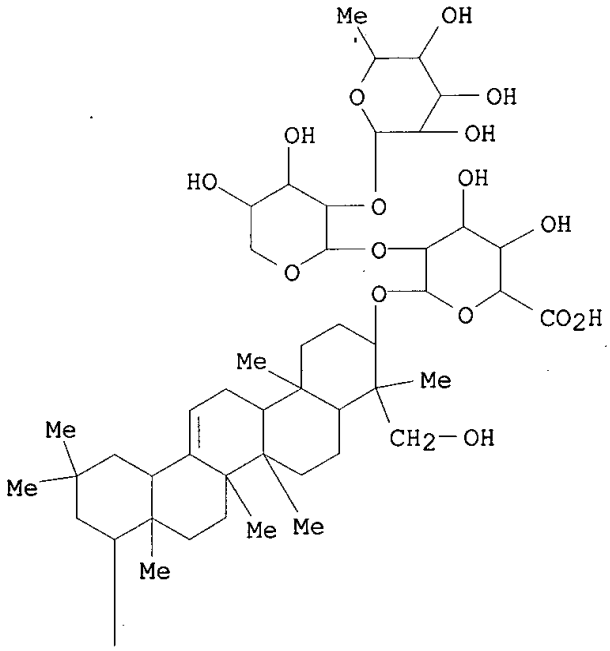
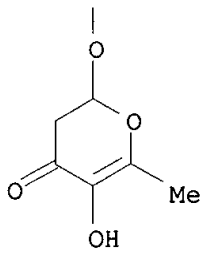
Figs 3-5

L23 4 L16 OR L17

L23 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN 149636-85-1 REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22-[(3,4-dihydro-5-hydroxy-6-methyl-4-oxo-2H-pyran-2-yl)oxy]-23-hydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.alpha.-L-arabinopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN **Soyasaponin .beta.a**
MF C53 H82 O20
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



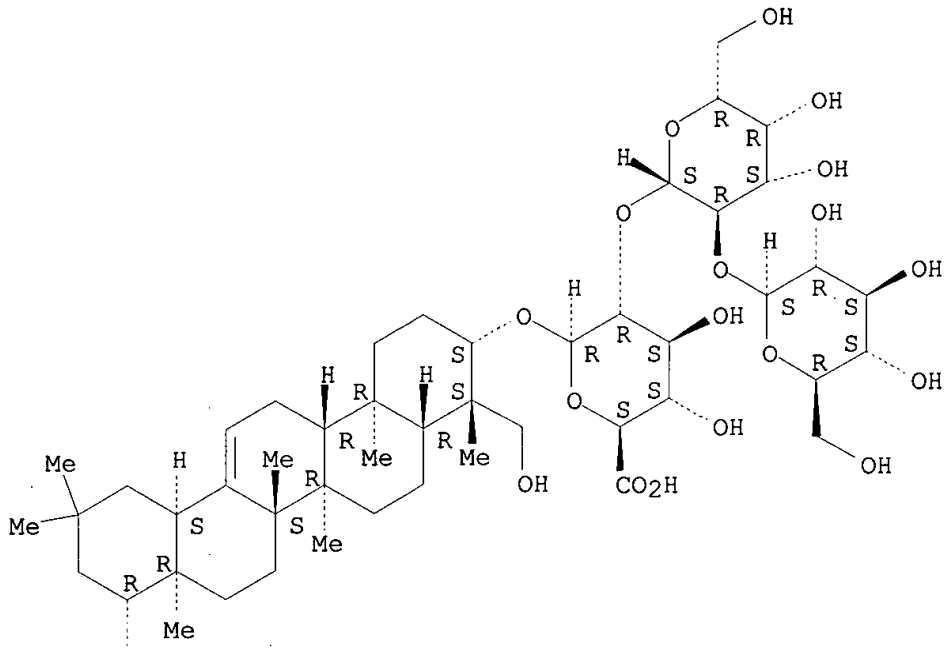


9 REFERENCES IN FILE CA (1967 TO DATE)
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L23 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN 114590-20-4 REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN **Soyasaponin Ba**
CN Soyasaponin V
FS STEREOSEARCH
DR 114451-23-9, 220640-71-1
MF C48 H78 O19
SR CA
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAPLUS, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.

PAGE 1-A

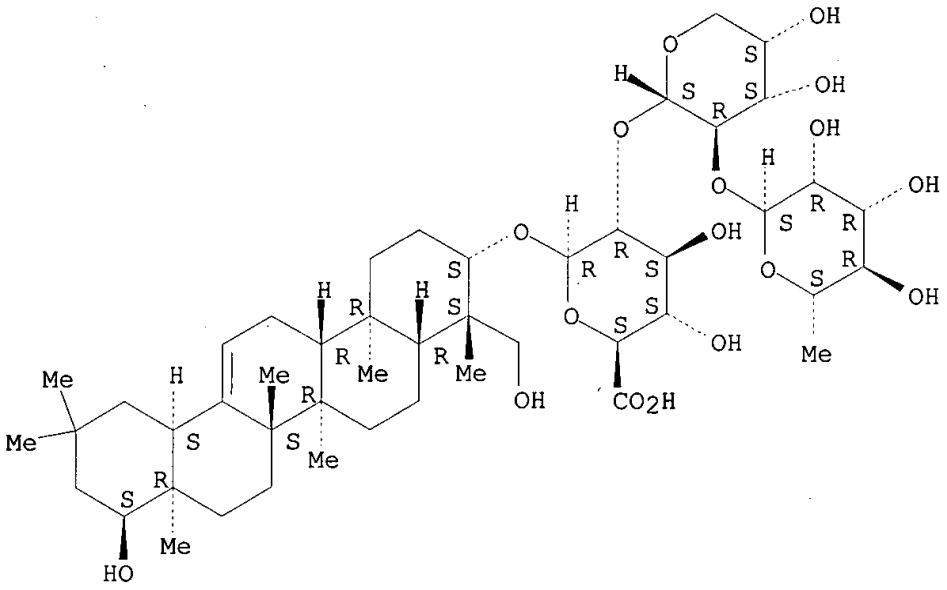


PAGE 2-A

24 REFERENCES IN FILE CA (1967 TO DATE)
24 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L23 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN 55319-36-3 REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.alpha.-L-arabinopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN **Soyasaponin Bc**
CN Soyasaponin II
FS STEREOSEARCH
DR 220640-78-8
MF C47 H76 O17
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, DDFU, DRUGU, EMBASE, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.

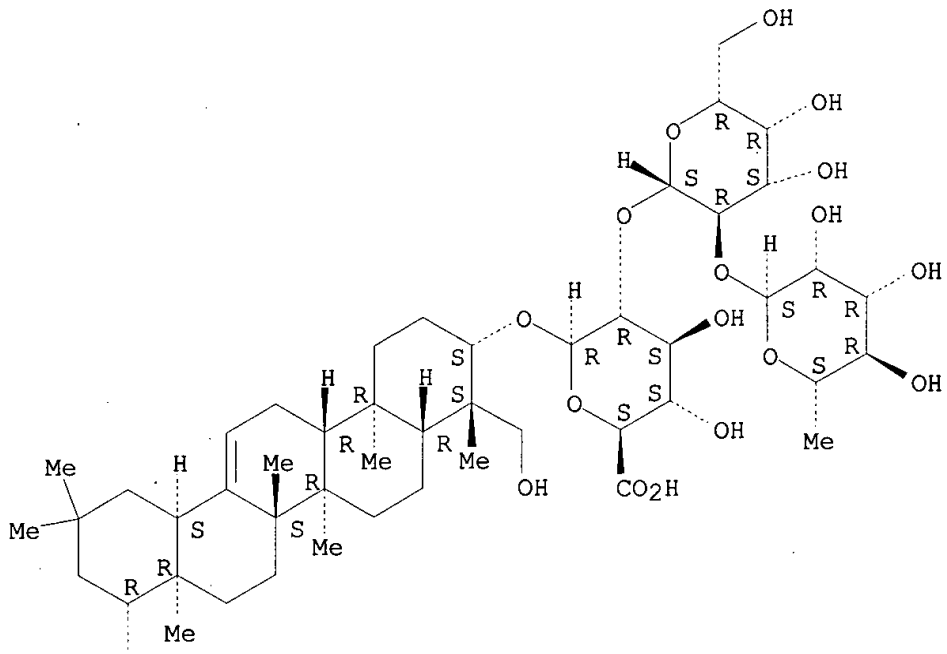


58 REFERENCES IN FILE CA (1967 TO DATE)
58 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L23 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN 51330-27-9 REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,4.beta.,22.beta.)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.2)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN SCM 3B
CN **Soyasaponin Bb**
CN Soyasaponin I
FS STEREOSEARCH
DR 55366-25-1, 189220-80-2, 220640-76-6
MF C48 H78 O18
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

173 REFERENCES IN FILE CA (1967 TO DATE)
173 REFERENCES IN FILE CAPLUS (1967 TO DATE)

FILE 'HCAPLUS' ENTERED AT 15:13:32 ON 17 JUN 2002

L24 328 SEA ABB=ON PLU=ON L23 OR SOYASAPONIN OR SOYSAPONIN OR (SOYA OR SOY)(W)SAPONIN
L25 0 SEA ABB=ON PLU=ON GALACTOSYL(S)(SOYASAPOGENOL OR SOYSAPOGENOL OR (SOYA OR SOY)(W)SAPOGENOL)
L26 4 SEA ABB=ON PLU=ON (L24 OR L25) AND (PKD OR (KIDNEY OR RENAL)(5A)(DISEAS? OR DISORDER))
L27 1 SEA ABB=ON PLU=ON L26 NOT L7

L27 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:153139 CAPLUS
DOCUMENT NUMBER: 92:153139
TITLE: 3-O-(.beta.-D-Glucuronopyranosyl)soyasapogenol B
INVENTOR(S): Shinohara, Masanao; Nakano, Yoshimasa; Kaise, Hirotsugu; Izawa, Taketoshi; Miyazaki, Wasei
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: Ger. Offen., 45 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German

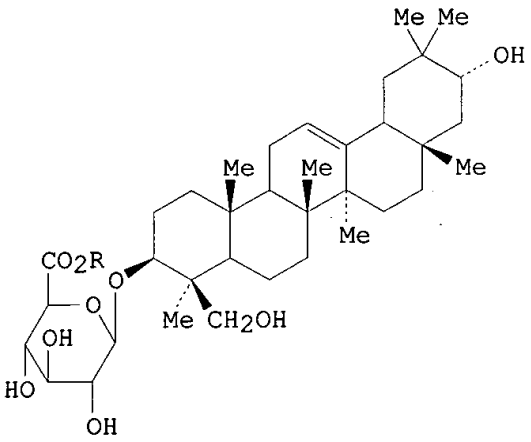
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2911353	A1	19791011	DE 1979-2911353	19790322
DE 2911353	C2	19871029		
JP 54130551	A2	19791009	JP 1978-38536	19780331
JP 58022120	B4	19830506		
ZA 7901061	A	19800326	ZA 1979-1061	19790307
AU 7944995	A1	19791004	AU 1979-44995	19790309
AU 527201	B2	19830224		
ES 478874	A1	19801001	ES 1979-478874	19790322
BE 875105	A1	19790926	BE 1979-194225	19790326
BE 875106	A1	19790926	BE 1979-194226	19790326
NO 7900994	A	19791002	NO 1979-994	19790326
NO 154584	B	19860728		
NO 154584	C	19861105		
FI 7901011	A	19791001	FI 1979-1011	19790327
FI 67559	B	19841231		
FI 67559	C	19850410		
GB 2020290	A	19791114	GB 1979-10739	19790327
GB 2020290	B2	19821027		
DK 7901266	A	19791001	DK 1979-1266	19790328
DK 162102	B	19910916		
DK 162102	C	19920224		
CA 1128498	A1	19820727	CA 1979-324367	19790328
CH 640868	A	19840131	CH 1979-2859	19790328
NL 7902449	A	19791002	NL 1979-2449	19790329
AT 7902360	A	19820515	AT 1979-2360	19790329
AT 369426	B	19821227		
SE 7902866	A	19791016	SE 1979-2866	19790330
SE 434269	B	19840716		
SE 434269	C	19841025		
FR 2421179	A1	19791026	FR 1979-8121	19790330
FR 2421179	B1	19830318		
US 4217345	A	19800812	US 1979-25518	19790330
SU 1074408	A3	19840215	SU 1979-2745040	19790330
ES 487982	A1	19810116	ES 1980-487982	19800124
SU 1190989	A3	19851107	SU 1980-2954186	19800731
US 4371524	A	19830201	US 1981-241294	19810306
AT 8103847	A	19840815	AT 1981-3847	19810907
AT 377526	B	19850325		

PRIORITY APPLN. INFO.:

JP 1978-38536 19780331
JP 1978-59345 19780517
AT 1979-2360 19790329
US 1979-25517 19790330

GI



I, R=H
II, R=Me
III, R=Na

AB The title compd. (I) [72584-55-5], obtained by alcoholysis-sapon. or hydrolysis of **soyasaponin** B [73201-76-0] or from cultures of Stachybotrys, had anticomplement activity and pharmaceutical formulations contg. I or its salts can be used to treat nephritis, autoimmune, collagen, or rheumatic diseases. Thus, **soyasaponin** B was subjected to methanolysis to give II [51247-04-2], which was sapond. to give I. Injections contg. III [72584-56-6], and suppositories and tablets contg. I were prepd.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:17:03 ON 17 JUN 2002)
L28 4 S L26
L29 3 DUP REM L28 (1 DUPLICATE REMOVED)

L29 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:520400 BIOSIS
DOCUMENT NUMBER: PREV199900520400
TITLE: Effect of a **soyasaponin**-enriched alcohol extract from soy protein isolate on **disease** progression in mice with polycystic **kidney disease**.
AUTHOR(S): Philbrick, Diana J. (1); Bureau, Dominique P. (1); Collins, F. Williams; Sarr, Bashir; Ogborn, Malcom R.; Holub, Bruce J. (1)
CORPORATE SOURCE: (1) Human Biology and Nutritional Sciences, University of Guelph, Guelph, ON Canada
SOURCE: Journal of the American Society of Nephrology, (Sept., 1999) Vol. 10, No. PROGRAM AND ABSTR. ISSUE, pp. 85A.
Meeting Info.: 32nd Annual Meeting of the American Society of Nephrology Miami Beach, Florida, USA November 1-8, 1999 American Society of Nephrology . ISSN: 1046-6673.
DOCUMENT TYPE: Conference
LANGUAGE: English

L29 ANSWER 2 OF 3 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97345274 EMBASE

DOCUMENT NUMBER: 1997345274
TITLE: Therapeutic potential of endothelin converting enzyme inhibitors.
AUTHOR: Jeng A.Y.
CORPORATE SOURCE: A.Y. Jeng, Novartis Pharmaceuticals Corp, LSB-2227, 556 Morris Avenue, Summit, NJ 07901, United States. arco.jeng@pharma.novartis.com
SOURCE: Expert Opinion on Therapeutic Patents, (1997) 7/11 (1283-1295).
Refs: 123
ISSN: 1354-3776 CODEN: EOTPEG
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
028 Urology and Nephrology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Endothelin-1 (ET-1) is a potent peptidic vasoconstrictor. Similar to many other peptidic hormones, ET-1 is initially synthesised as a large precursor and subsequently cleaved by proteolytic enzymes to form the mature peptide. The final step of post translational processing is catalysed by endothelin converting enzyme (ECE). Thus, inhibitors of ECE should suppress the biosynthesis of ET-1 and, therefore, would have beneficial effects on diseases where an overproduction of ET-1 may play a pathogenic role. This article reviews the in vitro and in vivo activities of patented ECE inhibitors. The effects of ECE inhibitors on various animal models of cardiovascular, **renal**, and central nervous system **disorders** are summarised.

L29 ANSWER 3 OF 3 WPIDS (C) 2002 THOMSON DERWENT DUPLICATE 1
ACCESSION NUMBER: 1995-322936 [42] WPIDS
DOC. NO. CPI: C1995-143363
TITLE: Selective endothelin converting enzyme inhibitor - comprising **soya saponin** cpd., e.g. for treating hypertension, myocardial infarction, atherosclerosis or asthma.
DERWENT CLASS: B03 B05
PATENT ASSIGNEE(S): (NISS) NISSHIN FLOUR MILLING CO
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 07188033	A	19950725	(199542)*		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 07188033	A	JP 1993-334725	19931228

PRIORITY APPLN. INFO: JP 1993-334725 19931228
AN 1995-322936 [42] WPIDS

AB JP 07188033 A UPAB: 19951128
An endothelin converting enzyme (ECE) inhibitor comprises a **soya saponin** cpd. of formula (I) or its salt. R1, R2 = H or sugar chain.
USE - (I) is used for treating diseases caused by endothelin (ET), esp. hypertension, cerebrovascular spasm caused by subarachnoid haemorrhage, myocardial infarction, arteriosclerosis, **renal** insufficiency, heart failure, asthma, Raynaud **disease**, Buerger **disease**, Takayasu **disease**, Kawasaki **disease** and **renal disorders** caused by admin. of cisplatin.
ADVANTAGE - (I) specifically inhibits only ECE.
Dwg.0/0

FILE 'REGISTRY' ENTERED AT 15:19:06 ON 17 JUN 2002
E SOYASAPONINS/CN 5
E SOYSAPONINS/CN 5
E SOYA SAPONIN/CN 5
E SOY SAPONIN/CN 5
E MOLASSES/CN 5
L30 1 S E3
E ETHANOL/CN 5
L31 1 S E3

Prodn. soyasaponin claim 10

FILE 'HCAPLUS' ENTERED AT 15:20:21 ON 17 JUN 2002
L32 3 S (L24 OR L25) AND (L30 OR MOLASSES)
L33 3 S L32 NOT (L7 OR L26)

L33 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:182206 HCAPLUS
DOCUMENT NUMBER: 136:216936
TITLE: Extractive process and solvent systems for isolating saponins from soybean-derived materials
INVENTOR(S): Dobbins, Thomas
PATENT ASSIGNEE(S): Wiley Organics, Inc., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6355816	B1	20020312	US 2000-723350	20001127

AB Acetone-water mixts. are used, at various concns. and temps., in a cost-effective method for recovering **soy saponins** of high purity from soybean-derived materials (e.g., Prevastein), while also affording an economical means of recovering soy isoflavones as a byproduct.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:222893 HCAPLUS
DOCUMENT NUMBER: 132:333651

TITLE: Characterization and antimutagenic activity of soybean saponins
AUTHOR(S): Berhow, Mark A.; Wagner, Elizabeth D.; Vaughn, Steven F.; Plewa, Michael J.
CORPORATE SOURCE: United States Department of Agriculture, Agricultural Research Service, National Center for Agricultural Utilization Research, Peoria, IL, 61604, USA
SOURCE: Mutation Research (2000), 448(1), 11-22
CODEN: MUREAV; ISSN: 0027-5107
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An ext. was prepd. from a com. soybean-processing byproduct (soybean **molasses**) and was fractionated into purified chem. components. In previous work, this ext. (phytochem. conc., PCC) repressed induced genomic DNA damage, whole cell clastogenicity and point mutation in cultured mammalian cells. In the current study, a chem. fraction was isolated from PCC using preparative high-performance liq. chromatog. (HPLC). This fraction, PCC100, repressed 2-acetoxyacetylaminofluorene (2AAAF)-induced DNA damage in Chinese hamster ovary (CHO) cells as measured by single cell gel electrophoresis (alk. Comet assay). Using liq. chromatog.-electrospray ionization-mass spectroscopy and 1H and 13C NMR (NMR) spectroscopy, PCC100 was shown to consist of a mixt. of group B **soyasaponins** and 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP) **soyasaponins**. These include **soyasaponins** I, II, III, IV, V, Be, .beta.g, .beta.a, .gamma.g and .gamma.a. Purified soyasapogenol B aglycon prepd. from fraction PCC100 demonstrated significant antigenotoxic activity against 2AAAF. To our knowledge, these data demonstrate for the first time the antimutagenic activity of soybean saponins in mammalian cells.
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:304439 HCAPLUS
DOCUMENT NUMBER: 131:142039
TITLE: Novel Isoflavone, Cinnamic Acid, and Triterpenoid Glycosides in Soybean **Molasses**
AUTHOR(S): Hosny, Mohammed; Rosazza, John P. N.
CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry Center for Biocatalysis and Bioprocessing, College of Pharmacy The University of Iowa, Iowa City, IA, 52242, USA
SOURCE: Journal of Natural Products (1999), 62(6), 853-858
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Seven known isoflavones, genistein, daidzein, glycitein, formononetin, genistin, daidzin, and glycitein 7-O-.beta.-D-(6''-O-acetylglucopyranoside), ferulic acid, and two known saponin glycosides, **soysaponin** I and **soysaponin** A2, were isolated from soybean **molasses**. Several new compds. were also isolated and identified, including three isoflavones I and II (R1 = H, R2 = OH; R1 = R2 = OMe), two cinnamic acid ester glycosides III (R3 = OH, R4 = H; R3 = R4 = OMe), and a new saponin hexaglycoside IV. The structures of the new compds. were established on the basis of spectral data interpretation.

IT **51330-27-9P, Soyasaponin** I
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and structure of novel isoflavone, cinnamic acid, and triterpenoid glycosides in soybean **molasses**)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:22:34 ON 17 JUN 2002)

L34 9 S L32
L35 9 S L34 NOT L28
L36 4 DUP REM L35 (5 DUPLICATES REMOVED)

L36 ANSWER 1 OF 4 MEDLINE DUPLICATE 1

ACCESSION NUMBER: 2000217116 MEDLINE
DOCUMENT NUMBER: 20217116 PubMed ID: 10751618
TITLE: Characterization and antimutagenic activity of soybean saponins.
AUTHOR: Berhow M A; Wagner E D; Vaughn S F; Plewa M J
CORPORATE SOURCE: United States Department of Agriculture, Agricultural Research Service, National Center for Agricultural Utilization Research, Peoria, IL 61604, USA.
SOURCE: MUTATION RESEARCH, (2000 Mar 14) 448 (1) 11-22.
Journal code: 0400763. ISSN: 0027-5107.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 20000512
Last Updated on STN: 20000512
Entered Medline: 20000504

AB An extract was prepared from a commercial soybean-processing by-product (soybean **molasses**) and was fractionated into purified chemical components. In previous work, this extract (phytochemical concentrate, PCC) repressed induced genomic DNA damage, whole cell clastogenicity and point mutation in cultured mammalian cells. In the current study, a chemical fraction was isolated from PCC using preparative high-performance liquid chromatography (HPLC). This fraction, PCC100, repressed 2-acetoxyacetylaminofluorene (2AAAF)-induced DNA damage in Chinese hamster ovary (CHO) cells as measured by single cell gel

electrophoresis (alkaline Comet assay). Using liquid chromatography-electrospray ionization-mass spectroscopy and 1H and 13C nuclear magnetic resonance (NMR) spectroscopy, PCC100 was shown to consist of a mixture of group B **soyasaponins** and 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP) **soyasaponins**. These include **soyasaponins** I, II, III, IV, V, Be, betag, betaa, gammag and gammaa. Purified soyasapogenol B aglycone prepared from fraction PCC100 demonstrated significant antigenotoxic activity against 2AAAF. To our knowledge, these data demonstrate for the first time the antimutagenic activity of soybean saponins in mammalian cells.

L36 ANSWER 2 OF 4 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-206997 [18] WPIDS
CROSS REFERENCE: 1997-450802 [42]; 2000-255685 [19]; 2001-181507 [09]
DOC. NO. CPI: C1999-060451
TITLE: Phytochemical composition for treating e.g. cancer and pre- and post-menstrual symptoms.
DERWENT CLASS: B04 D13
INVENTOR(S): EMPIE, M; GUGGER, E; EMPLE, M
PATENT ASSIGNEE(S): (ARCH) ARCHER-DANIELS MIDLAND CO
COUNTRY COUNT: 35
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 906761	A2	19990407	(199918)*	EN	12
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
NO 9804591	A	19990406	(199923)		
AU 9887879	A	19990422	(199927)		
CA 2249501	A1	19990402	(199937)	EN	
JP 11221048	A	19990817	(199943)		16
ZA 9808962	A	19991124	(200001)		31
BR 9805069	A	20000321	(200028)		
KR 99066785	A	19990816	(200045)		
NZ 332131	A	20010629	(200140)		
US 6261565	B1	20010717	(200142)		
MX 9808146	A1	20001001	(200158)		
KR 2001071086	A	20010728	(200208)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
EP 906761	A2		EP 1998-308060	19981002
NO 9804591	A		NO 1998-4591	19981001
AU 9887879	A		AU 1998-87879	19981001
CA 2249501	A1		CA 1998-2249501	19981001
JP 11221048	A		JP 1998-296187	19981002
ZA 9808962	A		ZA 1998-8962	19981001
BR 9805069	A		BR 1998-5069	19981001
KR 99066785	A		KR 1998-41946	19981002
NZ 332131	A		NZ 1998-332131	19981001
US 6261565	B1	Div ex	US 1996-614545	19960313
		CIP of	US 1997-868629	19970604
		Provisional	US 1997-60549P	19971002

		CIP of	US 1998-35588	19980305
			US 1998-162038	19980928
MX 9808146	A1		MX 1998-8146	19981002
KR 2001071086	A		KR 2001-37277	20010628

FILING DETAILS:

PATENT NO	KIND		PATENT NO
NZ 332131	A	Div in	NZ 511694
US 6261565	B1	Div ex	US 5702752
		CIP of	US 5792503
		CIP of	US 6033714

PRIORITY APPLN. INFO: US 1998-162038 19980928; US 1997-60549P 19971002; US 1996-614545 19960313; US 1997-868629 19970604; US 1998-35588 19980305

AN 1999-206997 [18] WPIDS
CR 1997-450802 [42]; 2000-255685 [19]; 2001-181507 [09]
AB EP 906761 A UPAB: 20020204
NOVELTY - A composition from plant matter, is enriched in at least two phytochemicals selected from isoflavones, lignans, saponins, catechins and phenolic acids, with the phytochemicals optionally being in substantially native form. It is a dietary supplement for treating cancer, and pre-and post-menstrual syndromes.

ACTIVITY - Anti-cancer; antioxidant; antiinflammatory; analgesic; antiviral; modulator of the cardiovascular, immune and nervous systems; estregenic.

MECHANISM OF ACTION - None given.

USE - For treating breast, skin or colon cancer, migraine headaches, dementia, alcohol dependency, coronary heart disease, hot flushes, osteoporosis, sleep disorders, vaginal dryness or premenstrual syndrome, and for lowering blood stream cholesterol and modulating blood lipids (all claimed). e.g. tumor volumes in LNCaP implanted mice fed on isoflavone were reduced by up to 40% when the mice were fed with 92.53 mg isoflavones from soy protein isolate and soy phytochemicals concentrate.

ADVANTAGE - The composition has higher concentrations of phytochemicals than known commercial materials. As the composition contains largely the glycoside forms of isoflavones, bioavailability is high as these forms are more soluble than aglycoside forms.
Dwg.0/0

L36 ANSWER 3 OF 4 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1999324042 MEDLINE
DOCUMENT NUMBER: 99324042 PubMed ID: 10395502
TITLE: Novel isoflavone, cinnamic acid, and triterpenoid glycosides in soybean **molasses**.
AUTHOR: Hosny M; Rosazza J P
CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry, Center for Biocatalysis and Bioprocessing, College of Pharmacy, The University of Iowa, Iowa City, Iowa 52242, USA.
SOURCE: JOURNAL OF NATURAL PRODUCTS, (1999 Jun) 62 (6) 853-8.
Journal code: 7906882. ISSN: 0163-3864.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990913
Last Updated on STN: 19990913
Entered Medline: 19990827

AB Seven known isoflavones, genistein (4), daidzein (5), glycitein (6), formononetin (7), genistin (8), daidzin (9), and glycitein 7-O-beta-D-(6' '-O-acetylglucopyranoside) (10), ferulic acid, and two known saponin glycosides, **soysaponin** I (14) and **soysaponin** A2 (15), were isolated from soybean **molasses**. Several new compounds were also isolated and identified, including three isoflavones (1-3), two cinnamic acid ester glycosides (11) and (12), and a new saponin hexaglycoside (13). The structures of the new compounds were established on the basis of spectral data interpretation.

L36 ANSWER 4 OF 4 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1986-265068 JAPIO
TITLE: ANTI-OBESITY FOOD
INVENTOR: KADOTA AKIMI
PATENT ASSIGNEE(S): OSAKA CHEM LAB, JP (CO 472304)
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 61265068	A	19861122	Showa	(4) A23L001-307

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1985-108551 19850520
ORIGINAL: JP60108551 Showa
SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 417, Vol. 11, No. 132, P. 29 (19870424)
AN 1986-265068 JAPIO
AB PURPOSE: To provide the titled food containing a black pigment component extracted from unrefined sugar such as muscovado, **molasses**, etc., and **soya saponin** separated from saponin fraction of defatted soybean powder, as essential components, and effective to prevent the obesity by the glucose-absorption inhibiting action without causing side effects. CONSTITUTION: The objective food can be produced by compounding (A) a black pigment component (e.g. 3,4-dimethoxyphenyl-O-D-glucose) obtained by dissolving unrefined sugar such as muscovado, **molasses**, etc., in water, passing the solution through a column packed with a nonpolar polystyrene resin adsorbent and eluting the adsorbed component and (B) a **soya saponin** separated from the saponin fraction of defatted soybean powder and represented by the formula (Z is H or D-glucopyranosyl).

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L37	4075	SEA FILE=MEDLINE	ABB=ON	PLU=ON	SAPONINS/CT
L38	3806	SEA FILE=MEDLINE	ABB=ON	PLU=ON	"POLYCYSTIC KIDNEY DISEASES"/CT
L39	39950	SEA FILE=MEDLINE	ABB=ON	PLU=ON	"KIDNEY DISEASES"/CT
L40	6	SEA FILE=MEDLINE	ABB=ON	PLU=ON	L37 AND (L38 OR L39)

L40 ANSWER 1 OF 6 MEDLINE
AN 2001675240 MEDLINE
TI Role of ginsenoside-Rd in cisplatin-induced renal injury: special reference to DNA fragmentation.
AU Yokozawa T; Dong E
SO NEPHRON, (2001 Dec) 89 (4) 433-8.
Journal code: 0331777. ISSN: 0028-2766.
AB DNA of LLC-PK(1) cells cultured with cisplatin was fragmented to produce low-molecular-weight structures. Agarose gel electrophoresis of the DNA revealed a ladder pattern characteristic of apoptosis, indicating the induction of apoptosis by cisplatin. However, the degree of apoptosis was lower in cells cultured with cisplatin in the presence of ginsenoside-Rd, and this was accompanied by suppressed leakage of lactic dehydrogenase into the culture medium. The ladder pattern was detected on electrophoresis of DNA in renal tissue samples obtained from rats given an intravenous injection of cisplatin. Such DNA fragmentation was less conspicuous in rats given ginsenoside-Rd orally for 30 days prior to cisplatin administration. Significant suppression of the DNA fragmentation was also demonstrated by densitometry, and measurement of urea nitrogen and creatinine in blood also showed a marked decrease in their respective levels in rats administered ginsenoside-Rd. The present findings suggest that ginsenoside-Rd ameliorates cisplatin-induced renal injury, a process in which apoptosis plays a central role, and thereby causes restoration of the renal function.

L40 ANSWER 2 OF 6 MEDLINE
AN 1999134429 MEDLINE
TI Effect of ginsenoside-Rd in cephaloridine-induced renal disorder.
AU Yokozawa T; Owada S
SO NEPHRON, (1999 Feb) 81 (2) 200-7.
Journal code: 0331777. ISSN: 0028-2766.
AB To determine whether ginsenoside-Rd ameliorates the renal injury induced by cephaloridine, the effect of cephaloridine was investigated in rats given ginsenoside-Rd preceding cephaloridine administration and in control rats given no ginsenoside-Rd. In control rats, blood, renal and urinary parameters and the activities of antioxidative enzymes in renal tissue deviated from the normal range, indicating dysfunction of the kidneys. In contrast, when ginsenoside-Rd was given orally for 30 consecutive days prior to cephaloridine injection, the activities of the antioxidation enzymes superoxide dismutase and catalase were higher, while malondialdehyde levels in serum and renal tissue were lower in the treated rats than in the controls. The urea nitrogen and creatinine levels in serum were decreased in rats given ginsenoside-Rd. Decreased urine volume, increased urinary osmotic pressure, and decreased urinary levels of glucose, protein, sodium and potassium demonstrated a protective action against the renal dysfunction caused by cephaloridine. In addition, it was demonstrated that ginsenoside-Rd affected cultured proximal tubule cells exposed to cephaloridine.

L40 ANSWER 3 OF 6 MEDLINE
AN 1999068873 MEDLINE
TI Interference from digitoxin-like immunoreactive factors reduced in a new monoclonal chemiluminescent digitoxin assay.
AU Datta P; Dasgupta A
SO THERAPEUTIC DRUG MONITORING, (1998 Dec) 20 (6) 663-8.

Journal code: 7909660. ISSN: 0163-4356.

AB Endogenous digoxin-like immunoreactive factors (DLIF) can interfere with some digoxin immunoassays. We looked for similar interference, called digitoxin-like immunoreactive factors (DTLIF) in two digitoxin immunoassays: A new chemiluminescent assay (CLIA), processed on the automated random access immunoassay system ACS:180, and a fluorescent polarization assay (FPIA), processed on the semiautomated TDx batch analyzer. One hundred thirty-seven samples of sera were tested from nondigitalized pregnant women, patients with liver or kidney diseases, and cord blood. The CLIA digitoxin assay uses a murine monoclonal antibody and requires no sample pretreatment; the FPIA digitoxin assay uses a polyclonal rabbit antibody and requires sample precipitation. Both assays have a similar dynamic range and sensitivity and give comparable results with commercial controls and external quality control survey samples. Although the CLIA detected no digitoxin in any sample tested, the FPIA showed apparent digitoxin concentrations of more than 2.0 ng/ml for 100% and 44% among cord blood and liver disease specimens, respectively. The highest DTLIF concentration was found in serum from a patient with liver disease (18.1 ng/ml). When spiked with 32 ng/ml digitoxin, six of the samples containing DTLIF generated FPIA digitoxin values of 6% to 27.5% more than the expected digitoxin levels. Two specimens with no detectable DTLIF activity were run as controls, and when spiked with digitoxin, showed target digitoxin concentrations in the FPIA. The CLIA recovered near the target digitoxin values (32 ng/ml) in all spiked samples. It was concluded that the polyclonal FPIA digitoxin assay may give discordant digitoxin concentrations in some patient groups because of interference from digitoxin-like immunoreactive factors. The CLIA digitoxin assay is not affected by DTLIF interference.

L40 ANSWER 4 OF 6 MEDLINE
AN 96296736 MEDLINE
TI [Digoxin-like immunoreactive factors. Review of the literature]. Digoxin-like immunoreactive factor. Revisione della letteratura.
AU Ozzola G; Boncompagni L; Galastri G; Liberatori E; Marri M; Mazzei V; Patrizi L; Parca G; Piccini L; Biagi P
SO MINERVA MEDICA, (1995 Nov) 86 (11) 475-80. Ref: 42
Journal code: 0400732. ISSN: 0026-4806.

AB It is confirmed by several studies that in normal subjects a substance recognized by antibodies anti digoxin exists. Such a substance can be found at increased concentration in pregnant women, neonates, in liver or kidney diseases. A limited increase in concentration has been also registered in patients with essential hypertension and in normotensive patients with a family history of hypertension. Serum or urines rich in such a substance show an increased capacity of inhibiting in vitro the sodium-potassium pump and therefore in reducing also in vivo the capacity of reabsorption of sodium and with it, of water. The investigators interest for this substance has two main reasons: 1) the interference that such a substance has in dosages of digitalis in therapeutic monitorizing; 2) the possibility that such a substance has an important physiological role in hydroelectrolytic metabolism.

L40 ANSWER 5 OF 6 MEDLINE
AN 91107032 MEDLINE
TI Oral toxicity of Madhuca butyracea Macb. saponins to albino rats.
AU Lalitha T; Vishwanatha S; Venkataraman L V

SO INDIAN JOURNAL OF EXPERIMENTAL BIOLOGY, (1990 Jul) 28 (7) 642-7.
Journal code: 0233411. ISSN: 0019-5189.

AB Saponins, isolated from M. butyracea, were assessed for their acute and subacute oral toxicity in albino rats. Acute doses of saponins caused mortalities and LD50 and LD90 values were 330 and 430 mg/kg body wt respectively. Severe diarrhoea, restlessness and histopathological changes were observed in liver and kidney. Diets containing saponins at 0,250,500 and 1000 ppm for 14 weeks did not affect food intake, growth or organ weights, but induced mild histological changes in liver and kidney and altered the serum levels of alkaline phosphatase, blood urea nitrogen, cholesterol and proteins, particularly in female rats.

L40 ANSWER 6 OF 6 MEDLINE
AN 77201653 MEDLINE
TI Animal experiments on the question of the renal toleration of the horse chestnut saponin aescin.
AU Rothkopf M; Vogel G; Lang W; Leng E
SO ARZNEIMITTEL-FORSCHUNG, (1977) 27 (3) 598-605.
Journal code: 0372660. ISSN: 0004-4172.

AB The possibility that aescin might have a nephrotoxic side effect has been investigated by clearance studies in kidneys of healthy rats and by toleration studies in rats with damaged kidneys. The effect of aescin, both free and albumin-bound, on renal tubular transport processes was studied in the model of the isolated, artificially perfused frog kidney. The rates at which different concentrations of aescin were bound to rat plasma proteins were determined in vitro. The clearance of i.v. aescin was 13% of creatinine clearance and 7% of p-aminohippurate (PAH) clearance; this rules out the tubular secretion of aescin. No deaths occurred among aminonucleoside-damaged rats given i.v. sodium aescinate 2.2 mg/kg, but rats damaged with mercuric chloride or uranyl nitrate had exactly the same mortality rate as those given 2.2 mg/kg i.v. of sodium aescinate alone. The rats received four injections in all of aescin 0.35 mg/kg i.v., given at intervals of two days. Aescin had no effect on renal damage caused by aminonucleoside, mercuric chloride or uranyl nitrate. Aescin concentrations of 0.2 mg/l and 2.0 mg/l in the perfusion fluid increased the excretion of Na+ and glucose by the frog kidney and reduced the reabsorption of both these substances. With a sodium aescinate concentration of 5 mg/l the production of urine ceased. When 1% (w/v) of albumin was added to the perfusion fluid, even sodium aescinate 5 mg/l had no effect on the tubular transport of Na+, glucose and water. The fact that about 50% of aescin was not bound to plasma protein in vitro suggests that some of the small amount of aescin in the glomerular filtrate is reabsorbed in the tubules.

L37 4075 SEA FILE=MEDLINE ABB=ON PLU=ON SAPONINS/CT
L41 315 SEA FILE=MEDLINE ABB=ON PLU=ON MOLASSES/CT
L42 1 SEA FILE=MEDLINE ABB=ON PLU=ON L37 AND L41

L43 1 L42 NOT L40

L43 ANSWER 1 OF 1 MEDLINE
AN 2000217116 MEDLINE
TI Characterization and antimutagenic activity of soybean saponins.
AU Berhow M A; Wagner E D; Vaughn S F; Plewa M J
SO MUTATION RESEARCH, (2000 Mar 14) 448 (1) 11-22.

Journal code: 0400763. ISSN: 0027-5107.

AB An extract was prepared from a commercial soybean-processing by-product (soybean molasses) and was fractionated into purified chemical components. In previous work, this extract (phytochemical concentrate, PCC) repressed induced genomic DNA damage, whole cell clastogenicity and point mutation in cultured mammalian cells. In the current study, a chemical fraction was isolated from PCC using preparative high-performance liquid chromatography (HPLC). This fraction, PCC100, repressed 2-acetoxyacetylaminofluorene (2AAAF)-induced DNA damage in Chinese hamster ovary (CHO) cells as measured by single cell gel electrophoresis (alkaline Comet assay). Using liquid chromatography-electrospray ionization-mass spectroscopy and 1H and 13C nuclear magnetic resonance (NMR) spectroscopy, PCC100 was shown to consist of a mixture of group B soyasaponins and 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP) soyasaponins. These include soyasaponins I, II, III, IV, V, Be, betag, betaa, gammag and gammaa. Purified soyasapogenol B aglycone prepared from fraction PCC100 demonstrated significant antigenotoxic activity against 2AAAF. To our knowledge, these data demonstrate for the first time the antimutagenic activity of soybean saponins in mammalian cells.

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